SOUTHERN PACIFIC COMPANY

WESTERN DIVISION SPECIAL INSTRUCTIONS

No. 9

EFFECTIVE SUNDAY, DECEMBER 18, 1960
AT 12:01 A. M.,
PACIFIC STANDARD TIME

SUPERSEDING SPECIAL INSTRUCTIONS No. 8

THESE INSTRUCTIONS CONSTITUTE A PART OF THE TIMETABLE CURRENTLY IN EFFECT

W. M. JAEKLE,
General Manager.

E. D. MOODY,
J. A. McKINNON,
M. A. McINTYRE,
Assistant General Managers.

J. M. HATCHER,
General Superintendent of Transportation.

J. P. GRIFFIN,
Superintendent of Transportation.

A. S. McCANN,
Superintendent.

RULE A. Employes must have copy of Rules and Regulations of the Transportation Department effective July 1, 1960.

RULE M. Employes are warned that it is dangerous to ride on top or side of cars while passing points where impaired clearance exists, and that they must protect themselves from injury. See list of impaired clearances on main track and siding.

There are numerous other structures with impaired clearance on yard and station tracks on the division, and employes must be familiar with their location and avoid personal injury.

RULE 10. COLOR SIGNALS

COLOR	INDICATION
(a) Red	Stop.
(b) Yellow	Proceed at reduced speed, and for other uses prescribed by the rules.
(c) Green	Proceed, and for other uses prescribed by the rules.
(d) Blue	See Rules 26 and 297.

RULE 10-H. On the following branches:

Biola
Calistoga
Winters
Union
Schellville
Vallejo
San Ramon
Stonehurst
Riverdale
Oakdale
Kentucky House
Woodbridge
Ione

a green signal will not be displayed to the right of each track at the limit of restrictions. Instead, limit of restriction will be indicated by a yellow signal displayed to the left of track in direction of approach. Speed may be resumed when engine reaches the yellow signal so displayed, or when it is known by engineer that rear of train has passed the limit of restriction as specified in train order or timetable bulletin.

RULES 10-G, 10-H and 10-I. When unattended red flags or red lights, yellow signals, red CONDITIONAL STOP signs and yellow PROCEED PREPARED TO STOP signs are displayed between siding switches, they must be duplicated to the right of the siding in direction of approach. If clearance between siding and main track does not permit display of these signals to the right of the siding in direction of approach, signals may be displayed to the left of the siding. Display of these signals to the left of a siding in direction of approach must be respected as though they were displayed in accordance with these rules.

RULE 10-J. Speed signs prescribing an increase in speed will not be installed on branches. Speed Restrictions tables will indicate permissible speeds between mile post locations named.

RULE 26. When employes are working between, upon, in or under an engine or units, train, car or cars for purposes of inspection, repair or service of any of them a blue sign reading "Men at Work" (white lettering on blue background) must be displayed at each end of track or equipment to which coupling can be made. If engine is attached to train, car or cars, blue sign on engine end must be displayed on engineer's side of cab. On tracks regularly assigned for repairing of cars a blue sign must be displayed on a standee on the track or between rails of the track and switches leading thereto must be locked with a special lock.

At night a blue light must be attached to each blue sign prescribed herein.

When more than one class of employe is engaged in the work, a disk with the name of each employe or each class must be attached to the blue sign. A disk may be removed only by the employe attaching it or by an authorized employe. Signs or lights must not be removed by any person other than the employe who placed it, or by an authorized employe, and not until all disks, if any applied, have been removed.

An engine, train, car or cars protected by a blue sign must not be moved nor coupled to, or other equipment placed so as to obstruct the view of the signs or lights.

When repair work is to be done between, upon, in or under an engine or units, train, car or cars and blue signs are not available, engineer must be orally notified by the employe in immediate charge of the work and complete understanding had to prevent movement while work is being performed. The same employe is required to notify the engineer orally when the work has been completed.

On diesel fueling tracks at West Oakland diesel shop and Tracy Roundhouse, a blue light will not be attached to reflectorized blue "Men at Work" signs when displayed at night.

RULE 84. Passenger trains making station stop where rear end of train cannot be seen from the head end due to curvature of track, foggy or stormy weather, engineer will recall flagman from the rear as prescribed by Rule 14(d) or 14(e), as the case may be. When all passengers on rear of train have been loaded, flagman will sound signal 16(k) which will be answered by the engineer with signal 14(g). Train will not proceed until signal is given by trainman on head end of train.

RULE 98. Cars must not be kicked, dropped or shoved over railroad crossings not protected by interlocking, unless movement is protected.

RULE 107. Freight trains and engines must avoid passing between stations and loading tracks when passenger trains are closely approaching from opposite direction on double track, and care must be exercised by non-stopping passenger trains when approaching stations at about the same time that other passenger trains are approaching from the opposite direction. When practicable non-stopping trains are to be given preference, but each train must be operated in a manner to avoid confusion and hazard of personal injury.

RULE 206-B. When rubber stamp and printed train order form are used for issuance of Form Y train order, train dispatcher after recording form in train order book with stamp is required to write and transmit only the order number, addresses, mile post locations, stations, times and dates. Train order operators using the printed form for such train orders are required to copy and repeat only that portion of the order transmitted by the train dispatcher.

RULE 283. Movements governed by semaphore type diverging route signals displaying "Proceed on Diverging Route", Figs. A and B, must be made with caution.

RULES 281 and 285. Movements against the current of traffic governed by semaphore type dwarf signals displaying "Proceed", Fig. E, Rule 281; or by light type dwarf signals displaying "Proceed not Exceeding Medium Speed.", Fig. G, Rule 285, must be made with caution and position of switches observed.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and pilot lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track.

Further instructions posted inside push-button box.

ELECTRIC SWITCH LOCKS

Where electric switch locks are installed, lock box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until block indicator indicates block clear on opposite track. Within CTC limits train dispatcher's permission must also be obtained before lock box door is opened.

After lock box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked, after which lock box door must be closed and locked. Within CTC limits train dispatcher must also be notified by telephone when completed.

When block indicators indicate "block occupied," instructions posted inside lock box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Low type electric locks, such as are applied direct to lever of hub type switch stands, function as above except that the removal of the switch lock has the same effect as opening the lock box door. Instead of being equipped with an "unlocked" indicator, these locks have a pilot light that indicates by illumination when the lock is unlocked.

When pilot light will not illuminate to indicate electric lock is unlocked, push button on adjacent cast iron box, protected with cover and locked with switch lock, should be depressed to illuminate green light. After a time interval of from one to seven minutes pilot light on electric lock will be illuminated, indicating lock is unlocked.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, train dispatcher must be notified immediately, and movement made only after flag protection provided on both tracks.

MECHANICAL SWITCH LOCKS

After lock box door is opened lock lever may be moved upward against stop. After a time interval of from one to seven minutes indicator will show UNLOCKED and lever may be moved to reverse position "R". Switch may then be operated in usual manner.

Lock lever must not be returned to normal position "N" until all movements over the switch are completed, switch returned to normal position and locked.

Emergency lock release to be used only in case of mechanical failure, as indicated by failure of time release to function after several minutes. When necessary to break seal on emergency release, train dispatcher must be notified immediately and movement made only after necessary flag protection is provided.

RULE 605. INTERLOCKING

Trains and engines must not enter main track within interlocking limits where no signal governs such movement until permission has been obtained from signal operator, and must then run with caution not exceeding 12 MPH to the next signal.

Movements governed by dwarf signals must be made with caution and position of switches observed, as such signals govern movements for various routes.

Dual control switches within interlocking limits are under the control of signal operator. When necessary to hand-throw these switches, permission must be obtained from signal operator and be governed by Rules 771 and 772.

At all interlockings, when route lined is not to be used, following engine whistle signal will be sounded: o o — o o.

RULE 663(b). When movements are made over dual control switches under provisions of this rule, dual control switches must be placed in hand position, hand operated in accordance with Rule 772, and locked until movement over the switch has been completed.

CENTRALIZED TRAFFIC CONTROL

RULE 776. Trains authorized by train dispatcher to pass absolute signal displaying stop indication and to proceed at restricted speed under provisions of this rule, may resume normal speed after rear of train passes next block signal displaying green aspect.

GENERAL REGULATIONS

RULE 808. In case of grade crossing accident, it is permissible for crew members on request of law enforcement officers to furnish their names, occupations and addresses, identification of the train; confirmation that the whistle, bell and headlight or headlights were operating; and direction of the vehicle. Signed statements are not to be given. Should police officers desire any additional information, they should be courteously referred to Claims Department representative.

RULE 836. When necessary to shove cars ahead of engine between stations on descending grade, cars must be chained to the engine unless air brakes are operative on all cars and air cut in.

RULE 872. Enginemen taking charge of engines at West Oakland Diesel Shop and Tracy will consider engines as having been amply supplied with water, fuel and sand.

RULE 873. Sanders must not be operated between absolute or interlocking signals governing movements over dual control or power operated switches.

RULE 883. When an engine is left without an employe in charge, it must, when practicable, be placed on track affording protection against entry to main track; hand brakes must be fully applied, wheel secured with blocking chain, reverse lever removed from control stand and cab doors locked. If live engine, independent brake also must be placed in full application.

AIR BRAKE RULES

RULE 3. Standard brake pipe pressure for Holiday Mail and Express trains, Nos. 377 (PCW), 378 (PCE), 375 (Starpacer), Adv. FMS, FMS, and WCM is 90 pounds.

FREIGHT TRAINS

RULE 14. When dynamic brakes are used on both road and helper engines while moving on descending grades, additional tonnage in the same ratio per unit as specified for road engine may be handled without retaining valves.

Trains handled by DF-120 to 126 class engines must not use more than three units of dynamic brakes. Dynamic brake cable must be removed between third and fourth units in direction of movement, and unit selector switch on lead unit placed in No. 3 position.

Trains handled by DF-605, 607, 608, 609, 611 class engines must not use more than four units of dynamic brakes. Dynamic brake cable must be removed between fourth and fifth units in direction of movement, and unit selector switch on lead unit placed in No. 4 position.

Trains handled by DF-1 to 12 or DF-603, 606 class engines must not use more than five units of dynamic brakes. Dynamic brake cable must be removed between fifth and sixth units in direction of movement, and unit selector switch on lead unit placed in No. 4 position.

RULE 23. Gondola cars SP-345000 to 345999 are equipped with AB brake system which has automatic change-over feature to provide proper brake function when car is loaded and when empty. Before leaving a station or point where such cars have been added to the consist or where crews are changed, the outgoing engineer must actuate the automatic change-over feature by reducing brake pipe pressure to below 30 pounds whether cars are loaded or empty.

RULE 38-A. Will not apply at Fresno or Sacramento except incoming engineer after completing stop will make a full service brake application, leaving brakes applied. Running test in compliance with Rule 39 must be made as soon as speed permits after train departs terminal.

MISCELLANEOUS

5. Helper service:

(a) Helper engines must not be placed behind wooden underframe equipment.

(b) Helper engines consisting of not more than two units may be placed behind caboose.

(c) Helper engines consisting of not more than four units may be placed immediately ahead of caboose.

Air will be cut in on all helper engines, and engine must not be cut off when train is in motion.

6. Unless otherwise authorized, trains handling passenger cars with flat spots on wheels in excess of 3¼ inches in length must not exceed 10 MPH. When flat spots are not in excess of 3¼ inches long such cars may be operated at maximum authorized speeds.

27. Should a passenger train be stopped in a tunnel, air conditioned cars within the tunnel must immediately have the air conditioning systems, including ice engines and engine generators, shut off, fresh air intake shutters closed, and blower fans shut off.

Should a train be stopped with the engine in a tunnel and it is found that, in the case of a passenger train it cannot be moved within five minutes after stopping, and in case of a freight train it cannot be moved within a reasonable length of time, trainmen and enginemen must take necessary precautions to prevent movement. Independent brake and sufficient hand brakes must be immediately applied. Engine wheels must be secured by blocks and chains, and power plants and steam generators, if any, on engine shut down.

28. DF and DP class engines operated with engineer in other than the lead unit in direction of movement, must not exceed 20 MPH when approaching highway or street crossings at grade, subject to further restriction imposed by local conditions.

SPEED RESTRICTIONS FOR ENGINES: Maximum speed shown below is subject to further restrictions applicable to certain territories as shown in Speed Restrictions for Trains:

NOMINAL CLASS	RUNNING FORWARD WITH TRAIN OR LIGHT	RUNNING BACKWARD WITH TRAIN OR LIGHT
DF-1 to 12, except:	65	*30
6187 to 6189, 6191 to 6195, 6197 to 6200, 6205 to 6212, 6214 to 6227, 6229 to 6239, 6378 to 6382, 6384, 6385, 6387 to 6392, 6394 to 6403, 6440, 6442 to 6445, 6447, 6455, 6458 to 6461, 8086, 8087, 8090, 8096, 8099, 8101, 8104, 8110, 8112, 8115 to 8117, 8119 to 8121, 8123 to 8125, 8130 to 8133, 8138, 8290 to 8297, 8299, 8300, 8302, 8303	70	*30
6190, 6202, 6203, 6383, 6386, 6393, 6441, 6446, 6448 to 6457, 8091 to 8093, 8095, 8102, 8103, 8106 to 8109, 8111, 8114, 8118, 8122, 8126 to 8129, 8134 to 8137, 8139, 8298, 8301	79	*30
DF-100, 114 (5288, 5289), 115, 119, 123, 126	65	**65
DF-114 (5279 to 5287, 5290 to 5293), 117	55	**55
DF-116, 118, 120, 121, 122, 124, 125	70	**70
DF-101, 103 to 112	***35	**35
DF-200 to 206	55	**55
DF-300 to 306	65	**65
DF-307	60	**60
DF-500, 501	70	**70
DF-603, 606	70	**70
DF-605, 607, 610 to 613	65	**65
DF-608, 609	75	**75
DP	79	*30
DS-1, 4, 5	45	45
DS-2, 3, 6 to 12	60	60
DS-100 to 108, 110, 111, 113 to 115, 117 to 122	60	**60
DS-109	65	65
DS-200, 201	35	35
Any engine not listed	35	25

*When on head end of train or running light and engineer is in other than leading control cab in direction of movement.

**When operated in multiple unit control with engineer in other than lead unit in direction of movement must not exceed 30 MPH.

***On all main tracks and Suisun-Schellville, Napa Junction-Vallejo, Napa Junction-Napa, Lodi-Woodbridge, Lodi-Valley Spring, Galt-Clay.

All other Branch tracks 25 MPH.

Maximum speed of engines under following conditions, running under own steam, or hauled in train:

When all weight has been removed from any one pair of drivers	20 MPH
When all weight has been removed from only one wheel of any pair of drivers	30 MPH
When engine truck is removed	20 MPH
When main rod only is removed	30 MPH
When side rod only is removed	30 MPH
When both main and side rods are removed	20 MPH

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

Dead diesel engines hauled in train and weighing 150,000 pounds or more must be placed one car behind engine handling the train. If weight is less than 150,000 pounds dead diesel engines must be placed near rear of train.

Dead steam engines hauled in train and weighing 150,000 pounds or more on drivers must, as far as practicable, be cut in between 25 and 30 cars from the head end of the train but in no event less than 8 cars from engine handling the train. If weight is less than 150,000 pounds on drivers dead steam engines must be placed near rear of train.

Unless otherwise restricted, not more than two dead steam engines shall be moved in any one train and when so moved they must be separated by five cars. When an S or SE class and a road engine are moved dead in train, a steel underframe freight car must be placed between them and S or SE class engine entrained with tender ahead.

Maximum speed of trains handling dead engines of S or SE class 20 MPH; other steam engines 40 MPH; and diesel engines the speed shown for same engine running forward light, except DS-200, 201 class must have traction motor brushes removed and speed restricted to 30 MPH.

Dead or disabled engines, and equipment listed in timetable which requires movement at reduced speed must first be reported as ready to move to the chief train dispatcher, who will designate the train in which the engine is to be moved. Any such engine must not be handled in train until train order designating maximum speed is issued.

Movement of foreign line engines, in service or dead in train, must not be authorized until provisions of current Line Clearance Circular have been complied with.

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT	MPH MAIN TRACKS OTHER THAN BRANCHES	MPH MAIN TRACKS ON BRANCHES
Double or triple loads		25
Scale test cars	40	30
Cars with arch bar trucks	40	30
Steel pile drivers, except:	40*	30*
SPMW-4088 (locomotive crane pile-driver) with boom detached and trailing	35*	25*
with boom attached and trailing	25*	15
Wooden pile-drivers	..	25*
Relief outfits with steam derrick, except:	45*	25*
Nos. 7000 and 7010 on San Ramon Branch	..	10
Nos. 7000 and 7010 must not operate between Larkmead and Calistoga on Calistoga Branch.		
Nos. 7000 and 7010 must not operate between Edwin and Ione on Ione Branch unless authorized by Superintendent. If movement authorized, speed of 15 MPH must not be exceeded.		
Nos. 7014 and 7025 must not operate on any branch except Schellville Branch; Calistoga Branch between Napa Jct. and Napa River bridge 69.62 at Napa; and on Vallejo Branch between Napa Jct. and MP 68.40.		
Power shovel on own wheels	35*	25*
Ditchers on own wheels, except:	35*	25*
SPMW-4044	25*	25*
Car-top ditchers, if blocking and tie-down cables are removed	35*	25*
K&J, pedestal or center-hinged air-dump cars (except SPMW 5100 to 5289 loaded or empty)	35*	25*
Locomotive cranes:		
With boom disconnected, heavy end forward	35*	25*
With boom disconnected, light end forward	20*	15
With boom in place, either end forward	25*	15
Rotary snow plows:		
Steam	25	15
Electrified	35	15

*These speeds must not be exceeded, and on curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than shown in timetable and on speed signs.

OTHER MAXIMUM SPEEDS	MPH PASSENGER TRAINS	MPH FREIGHT AND MIXED TRAINS
Trains containing cars CG-50 to 63; MKT-45051 to 45070; NCStL-18097 to 18120 and 18263, 18349, 18481, 18498; RFP-280 to 288	60	60
Trains of deadhead equipment, with caboose	60	..
Passenger trains, with caboose	60	..
Engine and caboose only, except:	..	60
must not exceed speed for same engine running forward light.		
Logs loaded on flat or logging cars, except:	35	..
On curves	25	..
Through truss bridges, tunnels and passing stations	15	..
Engine, flanger and caboose only, except:	..	40
On curves	..	30

SPMW cars equipped with K type brakes must not be handled in trains consisting of more than 50 cars and train must not exceed 40 MPH while handling such equipment.

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels. Cars not so equipped must move in freight trains, passengers if any, to move on passenger trains.

Passenger carrying cars, baggage, express and other head-end cars, unless equipped with steel center sills and steel platforms must not be handled in passenger trains except on authority of Superintendent.

Freight cars must not be handled behind occupied passenger carrying cars, except in mixed trains in military or naval movements.

Baggage, express, mail, refrigerator or other head-end cars must not be handled on rear of passenger trains unless trainmen can pass through them, except between Oakland Pier and Pittsburg.

When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH, and speed of freight trains must not exceed 49 MPH, nor may speed exceed that applying to normal operation. Unless proceed signal received, or it is known that warning devices are operating, such trains and engines must stop approaching road crossings where automatic warning devices are installed, and may proceed after member of crew protects crossing.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RULE 14(l). Whistle must be sounded on westward trains immediately on emerging from Tunnel No. 2 at Selby and Tunnel No. 1 at Oleum.

RULE 14(m). Whistle will not be sounded one mile before reaching stations between Oakland 16th Street and San Pablo.

RULE 21-C. Engines to handle trains from Desert Unit West Oakland, may display indicators before leaving West Oakland. Indicators of engines on trains arriving Desert Unit West Oakland, may be displayed until engine reaches West Oakland and must be removed immediately on arrival at delivery track.

RULE 30. Between the hours of 9:00 PM and 6:00 AM engine bell must not be rung, except in emergency, in city limits of Napa.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
	Oakland (Martinez line)	17.35
	" (Niles line)	15.82
	" (Alvarado line)	14.01
27.97	Port Costa	39.24
	" (Benicia spur)	End of track
	" (Tracy line)	37.08
47.05	Suisun-Fairfield	52.45
	" (Schellville Branch)	51.25
74.20	Davis	77.37
	" (Tehama line)	77.39
85.51	Sacramento	95.35
131.60	" (Stockton line)	136.33
37.50	Avon	38.90
	" (San Ramon Branch)	58.00
39.53	Port Chicago	42.93
46.31	Pittsburg	51.68
61.00	Brentwood	62.70
80.70	Tracy (Martinez-Los Banos line)	85.64
69.19	" (Niles-Lathrop line)	74.37
59.85	Napa Jct. (Creston-Schellville line)	64.56
	" (Calistoga line)	62.21
	" (Vallejo line)	End of track
68.34	Napa-Calistoga	End of track and including Union Branch
71.72	Schellville (Lombard-Ignacio line)	NWP 38.93
	" (Sonoma line)	NWP 41.70
58.00	Elmira (Winters Branch)	End of track

Oakland: Yardmen must use green flag by day and green light by night when signaling trains to enter or leave yard tracks.

When freight cars are moved from one point to another on main track within Oakland yard limits at night, a white light must be displayed on rear of rear car.

Suisun-Fairfield: Yard engines with or without cars must afford flag protection as prescribed by Rule 99 before moving in either direction between east switch of Subeet, MP 50.90 and east yard limit on Schellville Branch, MP 51.25.

RULE 98. Railroad crossings at grade not interlocked:

Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:

Benicia: Government Ry., crossing of Benicia spur near Benicia arsenal. If Signal 340 or 341 displays stop indication, flag protection must be provided on intersecting track before movement made over crossing.

Napa Jct.: Big balloon track crossing of Calistoga-Vallejo main track. Schellville line trains using big balloon track need not stop.

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:

Napa Jct.: Calistoga-Vallejo main track crossing of big balloon track. Calistoga-Vallejo line trains must stop.

Las Juntas: SNRy, crossing of San Ramon Branch.

Nitro: Narrow gauge crossings of spur tracks serving Atlas Powder Company.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against current of traffic or movements from yard tracks over crossings, must know gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
Emeryville	Powell Street	7.2
*Emeryville	65th Street	7.7
*Emeryville	66th Street	7.8
*Emeryville	67th Street	7.9
**Berkeley	Virginia Street	9.6
Berkeley	Gilman Street	10.1
Albany	Buchannan Street	10.9
Richmond	Central Avenue	11.6
Richmond	47th Street (Stege)	13.1
Richmond	Cutting Blvd.	13.8
Richmond	23rd Street	14.5
*Richmond	Barrett Avenue	15.1
Richmond	Roosevelt Avenue	15.3
Richmond	Pennsylvania Ave.	15.4
Richmond	Kearney Street	15.6
San Pablo	Chesley Avenue	16.3
San Pablo	Market Street	16.6
San Pablo	County Road No. 17	17.1
San Pablo	County Road No. 20	17.2
Martinez	Ferry Street	34.7
*Suisun-Fairfield	Cordelia Road	48.3
Tolenas	County Road No. 118	53.7
**Dixon (West)	"A" Street	67.4
**Dixon (East)	First Street	67.6
Vallejo	Georgia Street	67.6
**Port Chicago	Main Street	41.2
Los Medanos	County Road	50.8
Tracy	U. S. Highway 50	81.1

*Do not operate for against current of traffic movements and Rule 103-A will apply.

**Gates are not actuated when trains are stopping at station to receive or discharge traffic until train starts to move toward crossing, and speed of 10 MPH must not be exceeded until gates are down.

Berkeley: Eastward passenger trains making station stop must stop to clear Hearst Street.

Westward passenger trains making station stop must stop with rear of train clear of Virginia Street.

Richmond: Eastward passenger trains stopping at Richmond Station, will stop clear of impulse circuit 300 feet west of Barrett Ave. (which is designated on ground) to permit crossing gates to raise for vehicular traffic. When train starts, proceed slowly to permit gates to lower after passing impulse circuit.

Westward passengers train making station stop must stop with rear of train clear of Barrett Avenue.

Martinez: Eastward trains that are stopped at Martinez caused by a preceding eastward train occupying station, must stop with front of engine at switch stand approximately 200 feet west of Ferry Street crossing and when starting must approach the crossing at speed not exceeding 10 MPH to permit crossing gates to lower for the movement.

Napa: When switching on or across any street crossing city ordinance requires that member of crew must protect crossing.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Suisun-Fairfield	Crossing Union Ave. when moving against current of traffic, A-49.0,
Thomann	Crossing highway on Napa Valley Cooperative Winery spur, AB-86.0-C,
Vacaville	Crossing on Standard Oil spur, AD-63.15-C,
Davis	Crossing County road on University spur, A-75.7-C,
Port Chicago	Crossing County road on leads to Naval Supply Base, B-40.8-C, B-41.0-C,
Pittsburg	Crossings on industry spurs, B-47.8-C, B-48.1-C,
Brentwood	Crossing highway on Irrigated Farms spur, B-62.6-C.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Avon	San Ramon line, for siding,
Suisun-Fairfield	Napa Jct. line, for westward siding,
Napa Jct.	Suisun-Fairfield line, for Schellville line, at MP 61.60.
Schellville	Schellville Branch, for NWPRR main track,
Tracy	Niles line, for Martinez line,
Tracy	End double track, for eastward track,
Tracy	Los Banos line, for Niles line.

Napa Jct.: Track known as big balloon is Schellville line main track.

RULE 107. Station train indicators are provided in approach to following stations:

Eastward	Westward
Berkeley (2)	Richmond
Crockett	
Martinez	
Suisun-Fairfield	

When illuminated these indicators will convey the following information:

TRAIN—Train at platform on opposite track.
CLEAR—Indicator in service.

When neither TRAIN or CLEAR is illuminated, indicator is out of service and report must be made to chief train dispatcher as soon as practicable.

RULE 306. The following block signals equipped with triangular plate bearing the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as "P-I" or "P-SA".

Eastward Signal	Protection	Westward Signal
P-I	Collision detector, highway underpass west end of wye, Davis	P-I
	Spring switch, end double track, Mococo	P-359
P-464	Collision detector, highway underpass, MP 47.19 (Pittsburg)	P-479
P-510	Collision detector, highway underpass, MP 50.97 (Los Medanos)	P-519
P-SA	Dragging equipment detector, MP 31.8	
	Dragging equipment detector, MP 35.9	P-347

A 2-indication, light type indicator installed just below interlocking signal P-SA located 550 feet west of draw span, and a 2-indication, light type indicator attached to the mast of signal P-347, are designated as dragging equipment indicators.

They will display red aspect with signal at "STOP" when actuated by dragging equipment detector, and lunar white aspect when not actuated by dragging equipment detector.

Crews of trains stopped by signals P-SA or P-347 with the red indicator light illuminated, will inspect their train for dragging equipment.

Signal may be cleared and indicator light changed to lunar white by pressing push button located on signals P-SA and P-347 after first complying with Rule 306.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Signals in east end of Tracy numbered 710, 712, 713, 714, 715, 717, and 827 are automatic block signals and are under control of switchtender. When "STOP" is indicated, trains must stop and not proceed until "PROCEED" indication is displayed by governing block signal, or proceed signal is given with green flag or green light by switchtender.

Top light of signal 713 governs movement on main track and the lower light governs movement to hill or local yard tracks. Top light of Signal 827, located 800 feet east of junction switch on Los Banos Line, governs movement on main track, and the lower light governs movement to hill or local yard tracks.

Top light of Signal 709 governs movements to Martinez Line and the lower light governs movements to the Niles Line. Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from switchtender.

RULE 516. Overlap posts:

Los Medanos (250 feet west of Signal 509)	Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Mococo	End double track	Westward track

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
*West Oakland	1st and 16th St. line	16th St. line
*Ozol	East end siding	Main track
*Ozol	West end siding	Main track
Martinez	Junction switch	Bridge line
*Suisun-Fairfield	East end north siding	Main track
*Lombard	East end siding	Main track
*Lombard	West end siding	Main track

*Equipped with switch-point indicator.

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operated on yard tracks.

Oakland, 16th St.: Limits extend from signals 427 feet east of MP 5 on the Martinez line to Signal Bridge 204 and from Signal Bridge205 to Signal Bridge 206.

Whistle signals:
To West Oakland Yard, o — —,
From AT&SFRy interchange to West Oakland, ——,
To AT&SFRy interchange, o — o.

Telephones to 16th Street Tower and West Oakland Tower located at signal locations west of 16th Street Tower.

Telephones to 16th Street Tower at the following locations:
Signal Bridge 205 west end of Shellmound,
Signal Bridge 206 east end of Shellmound,
East end of Judson Spur, Shellmound.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

Telephones to 16th Street Tower and West Oakland Tower are located at signal locations west of 16th Street Tower.

Martinez: Limits extend on eastward main track from home signal 600 feet east of station building to westward dwarf signals 938 feet east of station building on Tracy line and on Suisun Bay bridge line.

Limits extend on westward main track from signals 2350 feet east of station building on Tracy line and on Suisun Bay bridge line, to interlocking signal 50 feet west of junction switch. Signal operator's permission must be obtained before fouling westward main track at crossover and switches from spurs to westward main track between Martinez and Ozol.

Whistle signals:
To Bridge line, o — —,
To Tracy line, — o —.

Suisun Bay Bridge, Martinez: Bridge zone limits extend on both tracks from home signals 800 feet east of draw span to home signals 550 feet west of draw span.

Davis: Limits extend on eastward and westward main tracks from interlocking signals at MP 75.25 to interlocking signal on signal bridge at MP 75.98 on westward main, interlocking signals 325 feet west of MP 75.98 on eastward main and east pass, interlocking signal at MP 75.97 on the west pass and to westward interlocking signal at MP 75.55 on the Gerber line.

The switch to the University spur is hand throw. Member of crew will operate hand throw switch after receiving permission of signal operator. Dwarf signal at clear point is an interlocking signal.

Cranks for hand operating power switches are mounted on signal instrument case on south side of track at west end of street underpass on the west end, on instrument case on south side of track opposite P.G.& E. switch on the Sacramento end, and on instrument case between 3rd Street and 4th Street on the Woodland end.

When necessary to hand operate power switches, permission must be obtained from the signal operator and be governed by Rules 771 and 772.

Instructions for hand operating power switches are mounted on cases above crank holders.

Whistle signals:

To or from Sacramento from or to Woodland line, o — —,
Western Division eastward trains to enter siding, — o —.

Sacramento River Drawbridge: Eastward trains failing to receive green aspect in approach Signal 878 must stop west of city limit sign, 1030 feet east of Signal 878, unless semi-automatic signal indicates "proceed".

Brazos Drawbridge over Napa River: Movement over bridge not permitted unless signal operator on duty.

RULE 680. AUTOMATIC INTERLOCKING

SNRy Crossing, MP 86.90: Limits extend between interlocking signals in approach to both sides of crossing.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows
W	77	Oakland (16th St.)	Stop east of 67th St. Emeryville and wait until Signal 77 displays proceed indication.
S	224	Pinole	Enter eastward siding Pinole and remain in siding until letter "M" is displayed.
M	7-ft. mast east end eastward siding	Pinole	Enter main track and proceed as prescribed by Rule D-251.
S	245	Pinole	Enter westward siding Pinole and remain in siding until letter "M" is displayed.
M	7-ft. mast west end westward siding	Pinole	Enter main track and proceed as prescribed by Rule D-251.
S	505	Suisun-Fairfield	Enter siding Suisun-Fairfield and remain in siding until letter M displayed.
M	7-ft. mast west end westward siding	Suisun-Fairfield	Enter main track and proceed as prescribed by Rule D-251.
S	409	Bahia	Enter siding Bahia and remain in siding until letter M is displayed.
M	West end center siding	Bahia	Enter main track and proceed as prescribed by Rule D-251.
S	354	Bahia	Enter siding at Bahia and remain in siding until letter M displayed.
M	East end center siding	Bahia	Enter main track and proceed as prescribed by Rule D-251.
S	450	Suisun-Fairfield	Enter siding at Suisun-Fairfield.
S	771	Davis	Enter westward siding (applies to freight trains only).
H	702	Tremont	Eastward trains must stop west of road crossing A-71.6 at Tremont and member of crew open small door on track side of Hot Box Locator, located west of crossing A-71.6. Numerals displayed by indicators inside the box indicate location of hot bearings in relation to rear axle of train. Top row indicates hot bearings on right side of train, lower row on left side of train in direction of movement. Indicators will display a maximum of four hot bearings on each side of train. All journals of car indicated must be inspected as well as all journals of each adjoining car. After hot bearing has been located from information furnished by indicators, press black push button to cancel numbers on the indicator. Door must be closed and secured with switch lock. A phone is located at Crossing A-71.6 for giving information to train dispatcher.
W	672	Dixon	Eastward train must stop and not proceed until indicator is extinguished except trains may proceed not exceeding restricted speed to the next home signal after receiving verbal authority from the train dispatcher. A telephone is located at Signal 672.

Display of letter "M" does not relieve conductors or engineers of compliance with Rule 513.

GENERAL REGULATIONS

RULE 825. Elmira: Not less than three hand brakes must be set on west end of cars left standing except with less than three hand brakes all brakes must be set.

Tracy: When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

Train crews must not release brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. Passenger trains operating between West Oakland and Gerber, except streamlined Cascade and Shasta Daylight, making station stop at Davis, must approach at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

Tracy: Passenger trains and trains consisting entirely of passenger equipment must approach Tracy at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Martinez: When trains 51 and 9 performing station work block Ferry Street crossing, trains 12 and 58 will approach Ferry Street and wait until trains 51 and 9 have cleared and vehicular traffic allowed to move before blocking this crossing.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop will consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels; and that communicating signal is operating and cut-out cocks are properly positioned.

RULE 17. Retaining valves must be used on freight and mixed trains as follows:

With less than two dynamic brakes in operation, trains consisting of more than 110 cars which average over 60 tons per operative brake must use 20 retaining valves on head end of train on descending grade from Creston to Cordelia.

FREIGHT TRAINS

RULE 22. Trainmen must not couple air hose on outgoing trains at Port Costa or Suisun-Fairfield until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%. Grades where such restrictions apply will be:

OAKLAND TO SACRAMENTO

Maximum speed of freight trains must not exceed 20 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward

MP 33.8 to MP 36.0 (Eastbound main)

SCHELLVILLE BRANCH

Westward

MP 55.0 to MP 58.0

Maximum speed of freight trains must not exceed 25 MPH on descending grade between the following milepost locations when gross tonnage exceeds 85 tons per operative brake:

Eastward

MP 58.0 to MP 62.8

CALISTOGA BRANCH

Westward

MP 77.0 to MP 79.0

RULE 39. Running test must be made as follows: Eastward and westward trains at Creston.

MISCELLANEOUS

10. Engines listed must not operate on tracks shown below.

Class of Engine	Restricted Tracks
All	Rocktram—Three spur tracks diverging from interchange tracks on river side of main track.

11. Load limit (car and contents):

Oakland-Sacramento	251,000 pounds
Martinez-Tracy	251,000 pounds
Suisun-Fairfield-Schellville	240,000 pounds
Napa Jct.-Union	240,000 pounds
Union-Larkmead	230,000 pounds
*Larkmead-Calistoga	169,000 pounds
Union-West Napa	240,000 pounds
Napa Jct.-Vallejo	240,000 pounds
Elmira-Winters	240,000 pounds
*Winters-Esparto	240,000 pounds
**Avon-Radum	210,000 pounds

*Exception: Passenger equipment on six axles weighing not over 200,000 pounds may be handled.

**When notified that false bents are not in place on bridge 56.99 load limit between Avon and Radum will be 169,000 pounds.

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
West Oakland	5 (Water)
Suisun-Fairfield	10 (Water)
Cannon	10 (Water)
Dixon	28 (Water)
Washington	21 (Water)
Flosden	3
Schellville	5 (Water)
Tracy	18 (Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
6.4	Emeryville	Key System underpass	Side
6.6	Emeryville	W. U. pole line, near Park Ave.	Side
14.5	Richmond	AT&SFRy overhead bridge	Overhead
16.0	San Pablo	AT&SFRy overhead bridge	Overhead & side
26.7	Oleum	Tunnel No. 1	Overhead & side
27.7	Selby	Tunnel No. 2	Overhead & side
31.2	Port Costa	Water column, eastward track	Side
34.7	Martinez	Alhambra slough bridge	Side
75.8	Davis	Signal bridge, Woodland line	Overhead
88.5	Washington	Sacramento River drawbridge	Side
63.6	Vacaville	Ulatis Creek bridge	Side
75.8	Winters	Putah Creek bridge	Side
52.5	Thomasson	Suisun Creek bridge	Side
53.0	Thomasson	Tunnel	Overhead
93.5	Maple	Napa River bridge	Side
37.9	Avon	Pachecho slough bridge	Side
43.1	Nichols	Wagon bridge	Overhead & side
43.2	Nichols	AT&SFRy overhead bridge	Overhead & side
48.8	Pittsburg	Signal bridge	Overhead
64.7	Brazos	Drawbridge over Napa River	Side
44.6	Hookston	Walnut Creek bridge	Overhead & side
49.2	Walnut Creek	San Ramon Creek bridge	Overhead & side
57.0	San Ramon	San Ramon Creek bridge	Overhead & side

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, WEST OAKLAND TO SACRAMENTO:			
4.9 to 4.25	15	15	15
4.25 to 4.81 (crossing)	20	20	20
4.81 to 11.42	45	45	45
★11.42 to 16.00 (Richmond)	45	45	45
16.00 to 16.31	45	45	45
16.31 to 21.50	70	60	70
21.50 to 34.40	45	40	45
★34.40 to 34.70 (Martinez)	30	30	30
34.70 to 33.58	45	40	45
33.58 to 33.64 (lift span)	30	30	30
33.64 to 35.50	45	40	45
35.50 to 37.12	79	60	70
37.12 to 37.40	70	60	70
37.40 to 48.38	79	60	70
48.38 to 49.00	55	55	55
49.00 to 75.20	79	60	70
75.20 to 76.00, except:	45	40	45
★★75.25 to 75.60 (crossover and west leg wye to Gerber line)	20	20	20
76.00 to 86.82	79	60	70
86.82 to 88.54 (SNRy. crossing)	45	45	45
88.54 to 89.00	10	10	10
EASTWARD, AGAINST CURRENT OF TRAFFIC:			
West Oakland to Sacramento (Subject to lesser speeds on westward track), except:	59	49	49
31.10 to 31.11 (Ozol)	35	35	35
34.20 to 34.21 (Ozol)	35	35	35
★★75.20 to 76.00	20	20	20
EASTWARD, MARTINEZ TO TRACY:			
34.70 to 35.88	35	35	35
35.88 to 35.91	25	25	25
35.91 to 48.90	79	60	70
★48.90 to 48.95 (Pittsburg)	25	25	25
48.95 to 53.30	79	60	70
★★★53.30 to 53.60 (Antioch)	45	45	45
53.60 to 80.70	79	60	70
80.70 to 82.10	45	45	45
82.10 to 82.39 (jct. Niles line)	15	15	15

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, SACRAMENTO TO WEST OAKLAND:			
89.00 to 88.54	10	10	10
88.54 to 86.82 (SNRy. crossing)	45	45	45
86.82 to 76.00	79	60	70
76.00 to 75.20, except:	45	40	45
★★75.60 to 75.36 (West leg wye and jct. switch)	20	20	20
75.20 to 49.00	79	60	70
49.00 to 48.38	55	55	55
48.38 to 35.50	79	60	70
35.50 to 33.64	45	40	45
33.64 to 33.58 (lift span)	30	30	30
33.58 to 34.70	45	40	45
★34.70 to 34.40 (Martinez)	30	30	30
34.40 to 21.50	45	40	45
21.50 to 16.31	70	60	70
16.31 to 16.00	45	45	45
★16.00 to 11.42 (Richmond)	45	45	45
11.42 to 4.81	45	45	45
4.81 to 4.25 (crossing)	20	20	20
4.25 to 4.9	15	15	15
WESTWARD, AGAINST CURRENT OF TRAFFIC:			
Sacramento to West Oakland (Subject to lesser speeds on eastward track), except:	59	49	59
34.21 to 34.20 (Ozol)	35	35	35
31.11 to 31.10 (Ozol)	35	35	35
★★76.00 to 75.20	20	20	20
WESTWARD, TRACY TO MARTINEZ:			
82.39 to 82.10	15	15	15
82.10 to 80.70	45	45	45
80.70 to 53.60	79	60	70
★★★53.60 to 53.30 (Antioch)	45	45	45
53.30 to 48.95	79	60	70
★48.95 to 48.90 (Pittsburg)	25	25	25
48.90 to 35.91	79	60	70
35.91 to 34.70	30	30	30

★Regulated by City ordinance. ★★ICC Regulation. ★★★Regulated by PUC order.

Identified freight trains are authorized to operate at speeds shown in Column 1 of Special Instructions except maximum speed must not exceed 60 MPH, providing consist does not exceed 70 cars or 3000 tons and tonnage does not exceed 60 tons per operative brake. When operating at such speeds standard brake pipe pressure of 90 pounds must be maintained.

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

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TERRITORY	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2
EASTWARD, AVON TO RADUM:		
38.10 to 44.64	25	25
44.64 to 44.67 (bridge)	15	15
44.67 to 49.22	25	25
49.22 to 49.25 (bridge)	15	15
49.25 to 56.99	25	25
56.99 to 57.02 (bridge)	15	15
57.02 to 67.80	25	25
EASTWARD, ELMIRA TO ESPARTO:		
59.60 to 76.00	25	25
76.00 to 90.35	15	15
EASTWARD, SUISUN-FAIRFIELD TO SCHELLVILLE:		
48.93 to 49.30	15	15
49.30 to 61.47	35	35
61.47 to 61.77 (Napa Jct.)	15	15
61.77 to 64.15	35	35
64.15 to 65.25 (drawbridge)	15	15
65.25 to 72.60	35	35
72.60 to NWPRR. on wye	10	10
EASTWARD, NAPA JUNCTION TO VALLEJO:		
61.60 to 61.75	15	15
61.75 to 67.00	25	25
67.00 to 67.01	15	15
67.01 to 69.00	25	25
EASTWARD, NAPA JUNCTION TO CALISTOGA:		
61.25 to 61.30	15	15
61.30 to 69.20	30	30
★69.20 to 71.10 (Napa)	25	25
71.10 to 71.60	30	30
71.60 to 71.78 (highway crossing)	15	15
71.78 to 79.50	30	30
79.50 to 87.00	25	25
★87.00 to 87.70 (St. Helena)	20	20
87.70 to 95.78	25	25
EASTWARD, WEST NAPA TO UNION:	15	15

TERRITORY	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2
WESTWARD, RADUM TO AVON:		
67.80 to 57.02	25	25
57.02 to 56.99 (bridge)	15	15
56.99 to 49.25	25	25
49.25 to 49.22	15	15
49.22 to 44.67	25	25
44.67 to 44.64 (bridge)	15	15
44.64 to 38.10	25	25
WESTWARD, ESPARTO TO ELMIRA:		
90.35 to 76.00	15	15
76.00 to 59.60	25	25
WESTWARD, SCHELLVILLE TO SUISUN-FAIRFIELD:		
NWPRR. on wye to 72.60	10	10
72.60 to 65.25	35	35
65.25 to 64.15 (drawbridge)	15	15
64.15 to 61.77	35	35
61.77 to 61.47	15	15
61.47 to 49.30	35	35
49.30 to 48.93	15	15
WESTWARD, VALLEJO TO NAPA JUNCTION:		
69.00 to 67.01	25	25
67.01 to 67.00 (Tennessee St.)	15	15
67.00 to 61.75	25	25
61.75 to 61.60	15	15
WESTWARD, CALISTOGA TO NAPA JUNCTION:		
95.78 to 87.70	25	25
★87.70 to 87.00 (St. Helena)	20	20
87.00 to 79.50	25	25
79.50 to 71.78	30	30
71.78 to 71.60 (highway crossing)	15	15
71.60 to 71.10	30	30
★71.10 to 69.20 (Napa)	25	25
69.20 to 61.30	30	30
61.30 to 61.25	15	15
WESTWARD, UNION TO WEST NAPA:	15	15

★Regulated by City ordinance.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10

SPECIAL INSTRUCTIONS—MARTINEZ SUBDIVISION

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Martinez	Martinez to Bridge Summit	Bridge Summit to Sacramento	Sacramento to Martinez	Martinez and Tracy
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	1400	2975	2650	3400
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045	3425	1400	2975	2650	3425
DP-13	6067 to 6068	....	....	....	....	....
DF-1 to 12	6138 to 6461, 8022 to 8303, except	3750	1600	3300	2950	3750
	with 61:16 gear ratio	....	....	....	....	....
	with 60:17 gear ratio	3000	....	....	....	3000
DF-100	5200 to 5202	....	....	....	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	5000	2475	4600	4100	5000
DF-109, 111	4903 to 4905, 5250 to 5252	5000	3050	5000	5500	5000
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	6100	2575	5425	4800	6100
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	....	....	....	....	....
DF-200 to 206	5100 to 5120	2000	850	1775	1575	2000
DF-300 to 304	4600 to 4623, 4700 to 4703	3250	1350	2900	①2550	3250
DF-305, 306	4624 to 4633	3600	1475	3150	2800	3600
DF-307	4634 to 4645	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....
DF-502	4816 to 4848	....	....	....	....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	3950	1700	3520	3130	3950
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4050	1750	3650	3250	4050
DS-1 to 8	1000 to 1032	1625	660	1425	1275	1625
DS-9 to 12	1033 to 1090	....	....	....	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	1025	2650	1925	2450
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	1400	2775	2475	3200
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....	....

①Applies Sacramento to Suisun-Fairfield only.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Suisun-Fairfield to Napa Jct.	Napa Jct. to Suisun-Fairfield	Napa Jct. and Larkmead Union and West Napa	Larkmead and Calistoga	Napa Jct. to Schellville Napa Jct. to Vallejo	Schellville to Napa Jct.
DF-1 to 12	6138 to 6461, 8022 to 8303, except	1000	1300			6050	2475
	with 61:16 gear ratio	....	....	....		....	....
	with 60:17 gear ratio	....	....	....		....	....
DF-100	5200 to 5202		....	....		....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	1575	2100	①3825		5000	3825
DF-109, 111	4903 to 4905, 5250 to 5252	1875	2525	2450		5000	4700
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	1600	2175	2100		10000	4200
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	1650	2100	....		....	....
DF-200 to 206	5100 to 5120	550	750	725	725	3000	
DF-300 to 304	4600 to 4623, 4700 to 4703	825	1075	1050		4000	2075
DF-305, 306	4624 to 4633	900	....	....		....	....
DF-307	4634 to 4645	....	....	....		....	....
DF-500, 501	4800 to 4815	....	....	....		....	....
DF-502	4816 to 4818	....	....	....		....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	1080	1400	....		....	....
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	1100	1475	....		10000	2725
DS-1 to 8	1000 to 1032	400	550	525	525	4000	1050
DS-9 to 12	1033 to 1090	....	....	....		....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	800	1050	1025	....	4000	2000
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	775	1050	②1025	....	4000	2050
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....	....
DS-200, 201	1900 to 1903	300	400	375	375	....	....

①Not permitted to operate between Yountville and Larkmead, nor between Union and West Napa.
②DS-118 not permitted to operate between Union and West Napa.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Vallejo to Napa Jct. Elmira to Winters	Winters to Elmira	Winters and Esparto	Radum to San Ramon	San Ramon to Radum	Avon to San Ramon	San Ramon to Avon
DF-1 to 12	6138 to 6461, 8022 to 8303, except	....	....	....	....	....	....	....
	with 61:16 gear ratio	....	....	....	....	....	....	....
	with 60:17 gear ratio	....	....	....	....	....	....	....
DF-100	5200 to 5202	....	....	....	....	....	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	3725	....	....	....	....	....	....
DF-109, 111	4903 to 4905, 5250 to 5252	3350	....	....	....	....	....	....
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	2825	3275	....	....	....	....	....
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	....	....	....	....	....	....	....
DF-200 to 206	5100 to 5120	975	1125	1800	1100	3000	....	....
DF-300 to 304	4600 to 4623, 4700 to 4703	1450	1725	....	....	....	....	....
DF-305, 306	4624 to 4633	....	....	....	....	....	....	....
DF-307	4634 to 4645	....	....	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....	....	....
DF-502	4816 to 4818	....	....	....	....	....	....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	....	....	....	....	....	....	....
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	....	....	....	....	....	....	....
DS-1 to 8	1000 to 1032	725	875	....	....	....	....	....
DS-9 to 12	1033 to 1090	....	....	....	....	....	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	1400	1650	....	....	....	....	....
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	1400	....	....	....	....	....	....
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....	....	....
DS-200, 201	1900 to 1903	1020	1150	2475	1250	2650	975	2650

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 14(l). Whistle signal must be sounded and bell kept ringing when entering or leaving the Sugar Co.'s yard at Alvarado or approaching their road crossing.

RULE 14(m). Whistle will not be sounded one mile before reaching stations between:

West Oakland and Elmhurst.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, are established at the following points:

West MP		East MP
	Oakland (Martinez line)	17.35
	“ (Niles line)	15.82
	“ (Alvarado line)	14.01
14.02	Mulford	18.00
17.75	Hayward	21.69
24.00	Alvarado	26.00
80.70	Tracy (Martinez-Los Banos line)	85.64
69.19	“ (Niles-Lathrop line)	74.37
24.44	Redwood Jct. (San Mateo-Newark line)	28.20
	“ (Palo Alto line)	27.17
35.20	Newark (Centerville-Redwood Jct. line)	40.50
28.79	“ (Alvarado-Santa Clara line)	34.50
41.29	Niles (Tracy-Redwood Jct. line)	30.67
26.60	“ (Hayward-Milpitas line)	30.95
41.70	East Pleasanton	45.60
63.25	“ (San Ramon line)	
45.89	Livermore	51.20
54.03	Altamont	55.64
38.50	Milpitas	42.50
43.47	San Jose (Palo Alto-Coyote line)	56.00
44.85	“ (Milpitas line)	
43.74	“ (Alviso line)	

Oakland: Yardmen must use green flag by day and green light by night when signaling trains to enter or leave yard tracks.

Tracy: Eastward trains from Niles line must receive proceed signal from yardman before passing "C" Street.

RULE 99-A. Flag protection to the rear against first-class trains is not required by trains or engines standing between Magnolia Tower and West Oakland Tower.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against the current of traffic or movements from yard tracks over crossings, must know that gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
Oakland	66th Ave.	11.7
Oakland	77th Ave.	12.2
Oakland	77th Ave. (drill)	12.3
Elmhurst	98th Ave.	13.3

Oakland: When moving against current of traffic flagman must protect crossing before movement is made over Grove, Broadway, Franklin and Webster Streets, 5th Avenue, 29th Avenue and High Street.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew.

Oakland-
Market St.. Pacific Pool Warehouse No. 7.
Mulford...... Crossing Maitland Drive on Airport drill, L-16.5-C.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Elmhurst..... End of double track, for eastward track;
Alvarado line, for Niles line;
Stonehurst line, for house track extension.

Switches handled by train-order operator for trains.

Tracy........ Niles line, for Martinez line.
Tracy........ End double track, for eastward track.
Tracy........ Los Banos line, for Niles line.

RULE 306. Following block signals equipped with a triangular plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
	Spring switch, Shinn	P-423
	Spring switch, end double track, Redwood Jct.	P-285
P-290	Spring switch, Niles	
	Spring switch, Milpitas wye, San Jose	P-I

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Elmhurst: Automatic block signals are under the control of train-order operator. When these signals display stop indication, trains must stop and not proceed until signals display proceed indication or proceed signal received from train-order operator, yellow flag by day, yellow light by night.

Trains or engines stopped by Signal 133 must contact train-order operator for permission to use switch. Signal should display proceed indication after switch is thrown. If signal fails to display proceed indication after switch has been thrown, trains or engines must not pass the signal unless proceed signal received from train-order operator, yellow flag by day, yellow light by night.

Niles: Signal 291 governs movements, through junction switch, from Tracy line. Signal 293 governs movements, through junction switch, from San Jose line.

Top unit of Signal P-290 governs movements to Tracy line and lower unit governs movements to San Jose line.

Tracy: Signals in east end of Tracy numbered 710, 712, 713, 714, 715, 717, and 827 are automatic block signals and are under control of switchtender. When "STOP" is indicated, trains must stop and not proceed until "PROCEED" indication is displayed by governing block signal, or proceed signal is given with green flag or green light by switchtender.

Top light of Signal 713 governs movement on main track and the lower light governs movement to hill or local yard tracks. Top light of Signal 827, located 800 feet east of junction switch on Los Banos Line, governs movement on main track, and the lower light governs movement to hill or local yard tracks.

Top light of Signal 709 governs movements to Martinez Line and the lower light governs movements to the Niles Line. Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from switchtender.

RULE 516. Overlap posts:

Hayward (1200 feet west of Signal 199) . . Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows:

Location		Normal Position
Redwood Jct.	End double track	Westward track

Spring switches not equipped with facing point locks are located as follows:

Location		Normal Position
Shinn	East end siding	Main track
Niles	Junction switch west of station	San Jose line
San Jose	Milpitas wye switch	Milpitas line main track
West Oakland	1st and 16th line	16th St. line

RULE 605. INTERLOCKING

On double track within Oakland yard limits signal operator may arrange to move trains from one tower to another against the current of traffic, after having an understanding by telephone for each movement. Before moving trains against current of traffic signal operator must know that track to be used is clear of opposing engines and trains.

West Oakland (First and Cedar Sts.): Limits extend from signals at Cedar Street on Niles line to signals 427 feet east of MP 5 on Martinez line.

Eastward signals on First Street lead 227 feet west of First Street freight lead crossing, eastward signal on washer track 144 feet west of freight lead, eastward signals on 16th Street lead at clear point, 187 feet west of freight lead switch, westward signals on diesel tracks, coach lead and yard leads 40, 50 and 60.

Telephones to 16th Street Tower and West Oakland Tower are located at signal locations west of 16th Street Tower.

Trains and engines moving out westward limits, West Oakland interlocker toward Bays are operating on yard tracks.

Magnolia Tower (First and Chestnut Sts.): Limits extend on eastward main track from signal 1600 feet west of WPRR crossing to dwarf signal 500 feet east of WPRR crossing, and on westward main track from signal 500 feet east of WPRR crossing to dwarf signal 480 feet west of crossing.

When necessary to perform switching within the interlocking limits, signal operator must designate work limits and clock time limit that must not be exceeded and must immediately actuate signal levers to display proceed indication in interlocking signals governing such movements and place red tags on signal levers controlling such movements. The tags must not be removed or attempt made to change position of power operated switches within such limits until yardmaster or member of crew has orally reported switching completed and clear of work limits.

Employe requesting work limits and clock time limit must state his name, occupation, location and train or engine number. Work and clock time limits granted must be repeated to signal operator and if correct, reponse "OK" will be given by signal operator.

Fruitvale: Limits on main track extend from Signal Bridge 123 to Signal Bridge 127 on westward track, and to westward dwarf signal 680 feet west of Signal Bridge 127 on eastward track.

Melrose: Limits extend between interlocking signals on old electric line and on the drill track between interlocking signal on west side of San Leandro Blvd. and interlocking signal on east side of WPRR crossing and is under the control of WPRR train dispatcher.

When signals do not display proceed indication after approach circuit is occupied, a member of crew must contact WPRR train dispatcher by telephone for instructions and permission to operate push button time release.

When necessary to perform switching within the interlocking limits, a member of crew must obtain clock time limit from WPRR train dispatcher and be governed by signal indication. When Klaxon horn is sounded, SP movements must immediately clear interlocking limits.

Cars or engines must not be left on approach circuits located in advance of interlocking signals.

Telephones, push buttons and instructions for operation of push button time release and dual control switches located in boxes on interlocking signal governing eastward movements on old electric line, on side of Instrument House and on instrument case adjacent to crossing of drill track and WPRR track.

Niles Tower: Limits extend from dwarf interlocking signal on Niles line and interlocking signal on Tracy line, 1685 feet west of WPRR crossing to Signal 298 on Milpitas line and to Signal 425 on Centerville line.

Eastward interlocking signal 650 feet west of WPRR crossing governs movements as follows:

Top unit governs movements to Milpitas line.
Lower unit governs movements to Centerville line.

When Signal 420 or Signal 422 display stop indication, train or engine must stop and not proceed until signal displays proceed indication or permission obtained from signal operator.

Junction switches are dual control switches and are under control of signal operator. When necessary to hand throw these switches, permission must be obtained from signal operator and be governed by Rules 771 and 772. Instructions for operation of dual control switch machines are posted in telephone booths.

Derail near east end of yard Track No. 1 at Niles is electrically locked and under control of signal operator at Niles Tower. Instructions for operation by hand when authorized by signal operator are posted inside of lock box.

Whistle signals:

To San Jose, o — —,
To Centerville, — o —,
To Niles, o — o,
To Tracy, — o — o,

Newark: Limits extend from signal 50 feet east of wye switch on Centerville line to signal 1150 feet east of wye switch on Santa Clara line, and to signal 650 feet west of wye switch on Elmhurst line, and to dwarf signals on Redwood Jct. line near Newark station building.

Crossover No. 25 from Santa Clara main track to Santa Clara siding is equipped with dual control switch machines under control of signal operator.

When necessary to hand throw these switches, permission MUST be obtained from the signal operator and be governed by Rules 771 and 772.

Whistle signals:

To Santa Clara, o — —,
To Santa Clara line siding, o — — o,
To Santa Clara line siding extension, — o,
To Redwood Jct., — o — o,
To Dumbarton line siding, — o — o o,
To Centerville, — o —,
To Elmhurst, o — o.

San Francisco Bay drawbridge, MP 32.53 on Redwood Jct. line:

RULE 680. AUTOMATIC INTERLOCKING

East Oakland, WPRR Crossing yard tracks, MP 7.70: Limits extend between interlocking signals in approach to both sides of crossing.

Derails within interlocking limits equipped with electric locks and after locks have been released derails may be operated by hand throwing lever on switch stand located at crossing.

WPRR Crossing (Stonehurst Branch), MP 13.80: Limits extend between interlocking signals in approach to both sides of crossing.

Radum, WPRR crossing MP 67.8 (San Ramon Branch): Limits extend between eastward SA signals just west of WPRR crossing and westward interlocking signals just east of WPRR crossing on both legs of wye track.

Signal clearing circuit located 100 feet in advance of eastward interlocking signal on east leg of wye and when occupied will clear signal for trains completing movement over crossing after signal has changed to stop indication account expiration of four minute time interval.

After signal clearing circuit is occupied if signal does not display proceed indication, a member of crew must actuate time release. After time release is actuated signal does not display proceed indication in six minutes, but red indicator on signal mast is illuminated movement may be made through interlocking. If red indicator light is not illuminated and signal displays stop indication, movement must be made under provisions of Rule 663(c).

Signals governing movement from San Ramon Branch to main track will not display proceed indication until junction switch on main track is lined for movement.

RULE 705—LETTER TYPE INDICATORS

Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows:
W	67	Oakland (First St.)	Freight trains stop, to clear Webster St., (second crossing east of station) and wait until Signal 67 displays proceed indication.
W	273	Redwood Jct.	Westward trains via Dumbarton must stop short of Signal 273 and wait until indicator is extinguished.
W	7 ft. mast MP 44.20	Santa Clara	Eastward trains, except first-class, stop short of Reed St. and wait until indicator is extinguished and flashing white light is displayed. Display of flashing white light authorizes movement to interlocking limits Santa Clara.

GENERAL REGULATIONS

RULE 825. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St., or on new Liberty track on west end of train, and four hand brakes must be set on east end of train before engine is detached.

Train crews must not release hand brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. Tracy: Passenger trains and trains consisting entirely of passenger equipment must approach Tracy at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Milpitas: Westward trains not exceeding 75 cars making pick-up or set-out at Milpitas will stop their train with rear end west of Convoy Road crossing.

Westward trains exceeding 75 cars making set-out or meeting eastward trains will stop their train east of Capitol Avenue and wait until eastward train is into clear before proceeding.

Eastward trains having set-out or pick-up at Milpitas will leave their train west of the relay post located 500 feet west of the State Highway crossing at MP 40.0 while making set-our or pick-up.

Eastward trains must not exceed 75 cars after set-out or pick-up is made when meeting an opposing train exceeding 75 cars.

RULE 872. Enginemen taking charge of engines at West Oakland diesel shop and Tracy will consider engines as equipped with prescribed signals, tools, supplies and flagging equipment in serviceable condition.

AIR BRAKE RULES

RULE 2. Enginemen taking charge of engines for freight and passenger service at West Oakland diesel shop will consider that condensation has been drained from reservoirs, and from moisture and dirt collectors; that sanders are operating properly; that there are no flat spots on wheels; and that communicating signal is operating and cut-out cocks are properly positioned.

RULE 17. Retaining valves must be used on freight and mixed trains as follows:

With less than two dynamic brakes in operation, trains consisting of more than 20 cars which average over 75 tons per operative brake must use 10 retaining valves on head end of train on descending grade from Altamont to Midway, or more if requested by engineer.

FREIGHT TRAINS

RULE 22. Tracy: Trainmen must not couple air hose on outgoing trains at Tracy until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

PASSENGER TRAINS

RULE 39. Running test must be made as follows:
Eastward and westward trains at Altamont.

MISCELLANEOUS

11. Load limit (car and contents):

Redwood Jct.-Tracy	251,000 pounds
Oakland-San Jose via Niles	251,000 pounds
Elmhurst-Santa Clara	251,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
West Oakland	5 (Water)
Milpitas	10 (Water)
Newark	5 (Water)
Livermore	12 (Water)
Tracy	18 (Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
28.9	Henderson	Highway underpass	Side
32.5	Dumbarton	San Francisco Bay drawbridge	Side
34.5	Dumbarton	Newark Slough drawbridge	Side
42.9	Niles Jct.	Highway underpass	Side
30.8	Dresser	Alameda Creek bridge	Side
31.5	Farwell	Alameda Creek bridge	Side
38.3	Pleasanton	WPRR overhead bridge	Overhead
55.4	Altamont	Highway overhead bridge	Overhead and side
57.9	Altamont	Tunnel	Side
18.2	San Lorenzo	San Lorenzo Creek bridge	Overhead and side
24.2	Decoto	WPRR overhead bridge	Overhead
29.4	Niles	Highway underpass	Side
36.2	Drawbridge	Warm Springs Slough bridge	Side
29.4	Niles Tower	Street underpass	Side

SPECIAL INSTRUCTIONS—NILES SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in **SPEED RESTRICTIONS FOR ENGINES** appearing on page 4 and **MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT**, and **OTHER MAXIMUM SPEEDS** appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, REDWOOD JUNCTION TO TRACY:			
26.23 to 26.25 (jct. switch)	20	20	20
26.25 to 28.35	35	35	35
28.35 to 28.41 (end double track)	25	25	25
28.41 to 31.51	60	60	60
31.51 to 33.00 (bridge)	30	30	30
33.00 to 37.00	60	60	60
37.00 to 37.51 (Newark)	15	15	15
37.51 to 42.23	50	50	50
42.23 to 43.00 (29.60) (Niles Jct.)	15	15	15
29.60 to 37.10	25	25	25
37.10 to 40.57	35	35	35
★40.57 to 41.43 (Pleasanton)	25	25	25
41.43 to 46.66	45	45	45
★46.66 to 47.48 (Livermore)	30	30	30
47.48 to 52.00	50	50	50
52.00 to 63.00	25	25	25
63.00 to 70.70	50	50	50
70.70 to 71.20 (jct. Los Banos)	15	15	15
NILES TO SAN JOSE YARD:			
★★29.00 to 29.75	15	15	15
29.75 to 45.17	60	60	60
45.17 to 47.39	15	15	15
WEST OAKLAND TO SANTA CLARA:			
★★3.50 to 5.00	15	15	15
5.00 to 5.93	30	30	30
5.93 to 5.94 (WP crossing)	20	20	20
5.94 to 6.20	30	30	30
★6.20 to 7.20 (Market to Oak St.)	15	15	15
7.20 to 10.50	30	30	30
10.50 to 13.45	40	40	40
13.45 to 13.47 (jct. switch)	15	15	15
13.47 to 13.70	30	30	30
13.70 to 28.79	60	60	60
28.79 to 31.00 (Newark)	35	35	35
31.00 to 39.00	60	60	60
39.00 to 40.10	40	40	40
40.10 to 43.73	60	60	60
43.73 to 44.48	40	40	40
44.48 to 45.01	15	15	15
EASTWARD, AGAINST CURRENT OF TRAFFIC:			
West Oakland to Elmhurst, except: (subject to lesser speeds on westward track)	40	40	40
★★5.65 to 6.05	20	20	20
★★9.55 to 10.13	20	20	20
ELMHURST TO NILES JUNCTION:			
13.45 to 13.47 (jct. switch)	15	15	15
13.47 to 29.00	50	50	50
29.00 to 29.60	25	25	25

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, TRACY TO REDWOOD JUNCTION:			
71.20 to 70.70	15	15	15
70.70 to 63.00	50	50	50
63.00 to 52.00	25	25	25
52.00 to 47.48	50	50	50
★47.48 to 46.66 (Livermore)	30	30	30
46.66 to 41.43	45	45	45
★41.43 to 40.57 (Pleasanton)	25	25	25
40.57 to 37.10	35	35	35
37.10 to 29.60 (43.00) Niles Jct.	25	25	25
43.00 to 42.23	15	15	15
42.23 to 37.51, except:	50	50	50
over spring switch east end Shinn	35	35	35
37.51 to 37.00	15	15	15
37.00 to 33.00	60	60	60
33.00 to 31.51 (bridge)	30	30	30
31.51 to 28.41	60	60	60
28.41 to 26.25	35	35	35
26.25 to 26.23 (jct. switch)	20	20	20
SAN JOSE YARD TO NILES:			
47.39 to 45.17	15	15	15
45.17 to 29.75	60	60	60
★★29.75 to 29.00 (Niles)	15	15	15
SANTA CLARA TO WEST OAKLAND:			
45.01 to 44.48	15	15	15
44.48 to 43.73	40	40	40
43.73 to 40.10	60	60	60
40.10 to 39.00	40	40	40
39.00 to 31.00	60	60	60
31.00 to 28.79	35	35	35
28.79 to 13.70	60	60	60
13.70 to 13.47	30	30	30
13.47 to 13.45 (jct. switch)	15	15	15
13.45 to 10.50	40	40	40
10.50 to 7.20	30	30	30
★7.20 to 6.20 (Oak St. to Market St.)	15	15	15
6.20 to 5.94	30	30	30
5.94 to 5.93 (WP crossing)	20	20	20
5.93 to 5.00	30	30	30
★★5.00 to 3.50	15	15	15
WESTWARD, AGAINST CURRENT OF TRAFFIC:			
Elmhurst to West Oakland (subject to lesser speeds on eastward track), except:	40	40	40
10.13 to 9.53	20	20	20
6.05 to 5.65	20	20	20
NILES JUNCTION TO ELMHURST:			
29.60 to 29.00	25	25	25
29.00 to 13.47	50	50	50
Thru Jct. Switch MP 13.47	15	15	15

★Regulated by City ordinance. **★★ICC Regulation.**

Trains must not exceed 20 MPH when passing trains being serviced between Cedar and Kirkham Sts., Oakland.

⊙No. 335, No. 336, Advance FMS, FMS and WCM, when consist contains no restricted cars, may operate at speed shown in Column 1, except maximum speed must not exceed 60 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
Ravenswood, on spur	10

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Oakland and Santa Clara	Oakland and San Jose Yard via Niles	Niles and Redwood Jct.	Tracy to Altamont	Livermore to Altamont	Niles to Livermore	Altamont to Niles Altamont to Tracy
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	2650	3725	....	....	....	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045	3375	2625	3700	1100	....	1400	5525
DP-13	6067 to 6068	3225	2525	....	....	....	....	....
DF-1 to 12	6138 to 6461, 8022 to 8303, except	3750	2950	4100	1275	1350	1600	6050
	with 61:16 gear ratio	....	....	....	....	....	....	....
	with 60:17 gear ratio	....	....	....	....	....	....	....
DF-100	5200 to 5202	....	....	....	....	....	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	5000	4075	5000	1675	1775	2150	5000
DF-109, 111	4903 to 4905, 5250 to 5252	5000	5000	5000	2550	2575	3050	5000
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	6100	4800	6750	2050	2175	2575	10000
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	6225	4850	6850	2050	2200	2575	10000
DF-200 to 206	5100 to 5120	2000	1575	2200	625	....	850	3000
DF-300 to 304	4600 to 4623, 4700 to 4703	3250	2500	3500	....	1110	1325	4000
DF-305, 306	4624 to 4633	3600	2800	4000	1125	1200	1475	4000
DF-307	4634 to 4645	....	....	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....	....	....
DF-502	4816 to 4818	....	....	....	....	....	....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	3950	3130	4360	1350	1425	1690	10000
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4100	3250	4500	1400	1475	1750	10000
DS-1 to 8	1000 to 1032	1625	1275	1775	520	550	660	4000
DS-9 to 12	1033 to 1090	....	....	....	....	....	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	1925	2700	800	550	1025	4000
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	2675	3575	1025	1175	1400	4000
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....	....	....	....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
80.70	Tracy (Martinez-Los Banos line)	85.64
69.19	" (Niles-Lathrop line)	74.37
105.85	Patterson	108.62
112.00	Crows Landing	114.50
117.95	Newman	121.04
122.50	Gustine	124.60
139.61	Los Banos	142.01
164.94	Firebaugh-Mendota	175.73
181.10	Ingle (Los Banos-Fresno line)	182.20
181.97	" (Riverdale Branch)	End of track
192.46	Kerman	194.53
206.04	Fresno (Pratton-Tulare line)	210.79
199.07	" (Merced-Clovis line)	209.60

Fresno: Trains or engines will not move against current of traffic on double track, except on authority of yardmaster. When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags installed, protecting crossings during movements, except where crossing watchman located.

Eastward first-class trains, after passing Signal 2052 (west of Tuolumne St.), must proceed with caution and be prepared to cross to westward main track on signal from yardman.

Westward trains via Pratton line must receive signal from yardman at Divisadero St. (green flag by day, green light by night).

When Signal 2046 on Pratton line, or Signal 2042 on eastward track displays stop indication train must stop, and after proceed signal received from yardman (green flag by day, green light by night) may then proceed as prescribed by Rules 509 and 513.

Eastward trains via Pratton line to Fresno Yard may pass Signal 2068 on Pratton line displaying stop indication without stopping, to enter west leg of wye, if wye switch is properly set and proceed signal received from yardman, white flag by day, white light by night, which will confer authority for movement to derail only.

Eastward trains via Pratton line to Fresno Yard must receive proceed signal from yardman (green flag by day, green light by night) before fouling eastward or westward main track.

Fresno Yard: Trains entering or leaving yard tracks must receive proceed signal from yardman (green flag by day, green light by night), except within limits of diverging route signals.

RULE 103-A. Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Vernalis	Crossing on Associated Dehydrators spur, BA-93.0,
Los Banos	Crossing 2nd and 4th Sts., on drill crossovers and storage tracks, BA-140.1, BA-140.2,
Firebaugh	Crossing 12th and 13th Sts., on drill and spur tracks, BA-166.2, BS-166.4-C,
Cromir	Crossing Shaw Ave. on team track, BA-170.2,
Helm	County road crossing on Holly Sugar Co. track, BAO-199.1.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Tracy	Niles line, for Martinez line,
Tracy	End double track, for eastward track,
Tracy	Los Banos line, for Niles line,
Ingle	Riverdale Branch, for siding,
Fresno Yard	End double track, for westward track,
Fresno	Pratton line, for eastward main track.

RULE 306. The following block signals equipped with triangular plate displaying the letter "P" have included in their control limits some special protective device. Interlocking signals are listed as P-I:

Eastward Signal	Protection	Westward Signal
P-1164	Flood detector at MP 116.60, Timba	P-1179
P-1372	Flood detector, MP 137.80 Volta	P-1387

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Signals in east end of Tracy numbered 710, 712, 713, 714, 715, 717 and 827 are automatic block signals and are under control of switch tender. When "STOP" is indicated, trains must stop and not proceed until "PROCEED" indication is displayed by governing block signal, or proceed signal is given with green flag or green light by switchtender.

Top light of Signal 713 governs movement on main track and the lower light governs movement to hill or local yard tracks. Top light of Signal 827, located 800 feet east of junction switch on Los Banos line, governs movement on main track, and lower light governs movement to hill or local yard tracks.

Top light of Signal 709 governs movements to Martinez line and the lower light governs movements to the Niles line. Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from switchtender.

RULE 605. INTERLOCKING

Biola Jct.: Limits extend on Merced line from 675 feet west of junction switch, and on Biola Branch from 575 feet west of junction switch, to 930 feet east of junction switch on Merced line, and to two unit signal 290 feet east of junction switch on No. 1 drill track.

Trains and engines stopped by signals will call signal operator at train-order office Muscatel by telephone and be governed by his instructions. Telephones and instructions for hand operation of dual control switches are located in battery house at junction switch and at derail on Biola Branch.

Two unit signal on No. 1 drill track. Top unit governs movement to Merced line; bottom unit to Biola Branch.

RULE 680. AUTOMATIC INTERLOCKING

Lyoth: WPRR crossing, MP 85.16. Limits extend from eastward SA Signal 825 feet west of crossing to westward SA Signal 475 feet east of crossing on main track and from SA Signal near east end Lyoth siding, 350 feet west of crossing.

Signals are approach clearing, if movement over crossing is not completed within 8 minutes after train enters approach circuit, signals will revert to STOP position.

Approach clearing circuits are provided approximately 1050 feet in advance of eastward SA home signal and 500 feet in advance of westward SA home signal to clear signals for trains desiring to complete movement over crossing after signals have assumes STOP position due to expiration of the 8 minute time interval.

Cars or engines are not to be left standing on these circuits.

Push button time release in box marked "SP" and block indicator marked "WP" are installed near crossing.

Instructions for operating time release are posted in box.

If signal indicates STOP for train desiring to make movement over crossing, a member of crew will proceed to crossing to operate time release. If block indicator marked "WP" indicates block clear, press push button until yellow light appears, then release. Approximately 8 minutes later a red light should appear under the button and signal indicate proceed.

If signal does not display proceed indication after time release has been operated, if red indication light on home signal is displayed, train may proceed through interlocking limits.

If home signal indicates STOP and red indicator light is not displayed, train may proceed over crossing as provided in Rule 663(c).

GENERAL REGULATIONS

RULE 825. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St. or on New Liberty Track on west end of train, and four hand brakes must be set on east end of train before engine is detached.

When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

Train crews must not release brakes on outbound trains until engine is coupled and brake pipe is charged.

RULE 827. Tracy: Passenger trains and trains consisting entirely of passenger equipment must approach Tracy at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

Los Banos: Passenger trains making station stop must approach Los Banos at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Los Banos: Westward freight trains making pick-up or set-out, must stop to clear Place Road which is first crossing east of Main Highway crossing (MP (141.3) east of Los Banos.

Eastward freight trains stopping to pick up or set out cars, will leave train west of Second Street Crossing.

Dos Palos: Trains picking up, setting out, or performing station switching at Dos Palos must not block road crossing BA 153.1, east of Station building.

Westward trains must leave train east of this crossing while performing work.

RULE 872. Enginemen taking charge of engines at West Oakland diesel shop and Tracy will consider engines as equipped with prescribed signals, tools, supplies and flagging equipment in serviceable condition.

AIR BRAKE RULES

RULE 22. Tracy: Trainmen must not couple air hose on outgoing trains at Tracy until train is made up and caboose and road engine are on train.

Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster, who will see to it that members of the train crew are notified in advance.

MISCELLANEOUS

11. Load limit (car and contents):

Tracy-Fresno	251,000 pounds
Ingle-Riverdale	240,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Tracy	18 (Water)
Ingomar	16
Los Banos	23 (Water)
Mendota	20 (Water)
Helm	10 (Water)

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	At or Near	Description
140.2	Los Banos	Warehouse opposite east leg of wye . . . Side

SPECIAL INSTRUCTIONS—LOS BANOS SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES	TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:		2	3	MP MP Column:	1	2	3
EASTWARD, TRACY TO FRESNO:				WESTWARD, FRESNO TO TRACY:			
82.62 to 83.00	15	15	15	★208.40 to 207.36	20	20	20
83.00 to 85.17 (WPRR. crossing)	45	45	45	207.36 to 206.87 (jct. switch)	15	15	15
85.17 to 140.10	70	60	70	206.87 to 166.68	70	60	70
140.10 to 141.30	35	35	35	166.68 to 166.39	60	60	60
141.30 to 166.39	70	60	70	166.39 to 141.30	70	60	70
166.39 to 166.68	60	60	60	141.30 to 140.10	35	35	35
166.68 to 206.87	70	60	70	140.10 to 85.17	70	60	70
206.87 to 207.36 (jct. switch)	15	15	15	85.17 to 83.00 (WPRR. crossing)	45	45	45
★207.36 to 208.40	20	20	20	83.00 to 82.62 (jct. Niles line)	15	15	15
INGLE TO RIVERDALE:				RIVERDALE TO INGLE:			
181.97 to 215.00	..	35	35	215.00 to 181.97		35	35

★Regulated by City ordinance.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Tracy and Fresno	Ingle and Riverdale
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045	3425	....
DP-13	6067 to 6068	....	....
DF-1 to 12	6138 to 6461, 8022 to 8303, except	3750	3000
	with 61:16 gear ratio	....	....
	with 60:17 gear ratio	3000	....
DF-100	5200 to 5202	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	5000	5000
DF-109, 111	4903 to 4905, 5250 to 5252	5000	....
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	6500	....
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	....	....
DF-200 to 206	5100 to 5120	2000	1625
DF-300 to 304	4600 to 4623, 4700 to 4703	3250	....
DF-305, 306	4624 to 4633	3600	....
DF-307	4634 to 4645	....	....
DF-500, 501	4800 to 4815	....	....
DF-502	4816 to 4818	5900	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	3950	....
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4050	....
DS-1 to 8	1000 to 1032	1625	1175
DS-9 to 12	1033 to 1090	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	1775
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	2525
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....
DS-200, 201	1900 to 1903	....	925

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 14(k). Will not apply in CTC limits.

RULE 93. Yard limits in which the provisions of Rule 93 will apply, except within CTC limits, are established at the following points:

West MP		East MP
80.70	Tracy (Martinez-Los Banos line)	85.64
69.19	“ (Niles-Lathrop line)	74.37
80.39	Lathrop (Tracy-Stockton line)	83.04
	“ (Merced line)	94.29
85.07	Stockton	93.72
	“ (Oakdale Branch)	End of track
101.57	Lodi	104.25
	“ (Kentucky House Branch)	End of track
	“ (Woodbridge Branch)	End of track
111.10	Galt	113.21
	“ (Ione Branch)	End of track
85.51	Sacramento	95.35
131.60	“ (Stockton line)	136.33

Oakdale: Trains and engines must move with caution between F and G Sts. expecting to find main track occupied by Sierra Ry trains or engines.

RULE 98. Railroad crossings at grade not interlocked: Trains and engines must approach with caution, and may move over the following crossings without stopping, if crossing clear and no movement approaching on intersecting line:

Stockton . . . CCTCo., crossing of Oakdale Branch near MP 92.0,

Stop clear of the following crossings, then proceed if no movement approaching on intersecting line:

Brandywine. CCTCo., crossing of Kentucky House Branch,
Oakdale . . . . . AT&SFRy, crossing of Oakdale Branch,
MP 116.7 on Ione Branch . . . CCTCo., crossing of Ione Branch.
Drawbridge not interlocked:

Stockton: AT&SFRy. crossing on connection to SPB-Ry. at Church and Edison Streets:

Stop not less than 10 feet nor more than 50 feet from crossing, then proceed (if no movement approaching on intersecting line). During fog, inclement weather or obscured visibility member of crew must flag through crossing after ascertaining there is no movement on conflicting route.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against the current of traffic or movements from yard tracks over crossings, must know that gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
Stockton	McKinley Ave.	87.8
Stockton	Hazelton Ave.	90.5
Stockton	Church Street	90.6
Stockton	Lafayette Street	90.7
Stockton	Market Street	90.9
Stockton	Main Street	90.9
Stockton	Weber Avenue	91.0

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Lodi . . . . Crossing Oak St. (D-103.25) and Pine St. (D-103.3) on yard tracks,
Tomspur . . . . Crossing on Aaron Canning Co. spur, D-98.1,
Woodbridge . . . . . Crossing Woodbridge road on General Mills spur, DE-105.3-C,
Carbondale . . . . Crossing County road when on industry track, DG-132.1.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Tracy . . . . Niles line, for Martinez line,
Tracy . . . . End double track, for eastward track,
Tracy . . . . Los Banos line, for Niles line,
Lodi . . . . Woodbridge Branch, for Lathrop line,
Lodi . . . . Yard track for Kentucky House Branch,

RULE 286. Trains or engines from Oakdale Branch must not pass Signal D-913 displaying yellow aspect without permission from yardmaster at Stockton. Cars or engines must not be left on approach circuit which extends 500 feet in advance of Signal D-913.

RULE 306. The following block signals equipped with triangular plate bearing the letter “P” have included in their control limits some special protective device. Absolute signals are listed as “P-A” or “P-SA”.

Eastward Signal	Protection	Westward Signal
P-A	Collision detector, highway underpass, MP 104.16, Lodi	P-1049
	Spring switch, Stockton wye	P-I

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Tracy: Signals in east end of Tracy numbered 710, 712, 713, 714, 715, 717 and 827 are automatic block signals and are under control of switch tender. When “STOP” is indicated, trains must stop and not proceed until “PROCEED” indication is displayed by governing block signal, or proceed signal is given with green flag or green light by switchtender.

Top light of Signal 713 governs movement on main track and the lower light governs movement to hill or local yard tracks. Top light of Signal 827, located 800 feet east of junction switch on Los Banos line, governs movement on main track, and lower light governs movement to hill or local yard tracks.

Top light of signal 709 governs movements to Martinez line and the lower light governs movements to the Niles line. Trains and engines stopped by Signal 709 may then proceed with caution if proceed signal received from switchtender.

Lathrop: Trains and engines stopped by Signal 828 may apply Rule 509 only after obtaining permission of train-order operator.

RULE 535. SPRING SWITCHES

Spring switches not equipped with facing point locks are located as follows:

Location	Normal Position
*Stockton, west leg of wye	West leg of wye

*Has ground throw switch stand below plate at switch not equipped with target bearing letters “SS”.

RULE 605. INTERLOCKING

Stockton Tower No. 2: AT&SFRy crossing, Sacramento and Taylor Streets, Stockton: Sound whistle signals as follows for:

Westward main track, o o — —,
Eastward main track, — o —,
Middle track, o — —,
Old siding, — — o o,
Hazelton Ave., o — o.

One short sound of tower siren (o) will be signal for all train movements to stop.

Two short sounds repeated several times (oo oo oo) will be signal for yard and train crews to clear the plant at once.

Lathrop: East zone: Limits extend from SA signal 575 feet west of west switch of crossover to SA signal 65 feet east of east switch of crossover.

West zone: Limits extend from 360 feet west of junction switch to 340 feet east of junction switch.

South zone: Limits extend from 225 feet west of junction switch to 65 feet east of junction switch.

WP zone: Limits extend between semi-automatic signals either side of WPRR crossing.

Telephones at interlocking signals governing entrance to East, West and South zones, and in door of concrete shelter at WPRR crossing.

Stockton: WPRR crossing Weber Avenue and Union St.: Signals governing movements over WPRR track at MP 91.00 are under control of WPRR train dispatcher. When signals governing movement over crossing display stop indication after approach circuit is occupied or if signal governing movements out of Building Materials Distributors spur does not display proceed indication after switch and derail have been lined, a member of crew must contact WPRR train dispatcher for permission and instructions to operate push button time release.

Eastward trains via Oakdale Branch must not leave yard until authorized by yardmaster or his representative.

Polk: West switch and eastward signals operated by signal operator at Elvas, and their use governed by Sacramento Division special instructions.

RULE 680. AUTOMATIC INTERLOCKING

French Camp, WPRR Crossing MP 87.85: Interlocking limits, interlocking signals 500 feet west of and 430 feet east of WP crossing on eastward main track. Interlocking signals 430 feet east of and 380 feet west of WP crossing on westward main track. Interlocking signals 240 feet west of and 210 feet east of WP crossing on the drill track.

RULE 760. CENTRALIZED TRAFFIC CONTROL

Limits extend from signals 650 feet west of WPRR crossing, MP 92.30 to interlocking signal just west of west switch at Polk.

On the double track between west limits of CTC and east end of Akers, movements may be made in either direction on either main track being governed by block signal indication and Rules 509 or 510 as applied to single track will apply to both tracks.

Movements across WPRR main track, MP 92.30, are under the control of SP train dispatcher at Oakland (16th St.) and movements over crossing will be made in accordance with applicable CTC rules.

When absolute signals governing movement over crossing display stop indication, a member of crew must contact train dispatcher by telephone for instructions.

Crossover switches are dual control switches and when necessary to hand throw these switches, Rules 771 and 772 will apply.

GENERAL REGULATIONS

RULE 825. Tracy: When train stops on yard track in Hill yard not less than three hand brakes must be set on cut west of C St. or on New Liberty track on west end of train, and four hand brakes must be set on east end of train before engine is detached.

When train stops on yard track on Martinez line, not less than four hand brakes must be set on west end of train before engine is detached.

Train crews must not release brakes on outbound trains until engine is coupled and brake pipe charged.

RULE 827. Tracy: Passenger trains except No. 51 and trains consisting entirely of passenger equipment must approach Tracy at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

Lathrop: Train No. 51 will be governed by the following: After stopping at Lathrop, forward brakeman will detrain and walk around entire train, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Lodi: Through freight trains picking-up or setting out will be governed as follows:

Westward trains must stop at Hill Signal east of yard and detach engine.

Eastward trains when consist does not exceed 75 cars will stop to clear Tokay Street and detach engine. When consist exceeds 75 cars, train must stop west of west switch of siding and detach engine.

Trains with consist in excess of 75 cars and using controlled siding must arrange to immediately cut street crossings.

RULE 872. Enginemen taking charge of engines at West Oakland diesel shop and Tracy will consider engines as equipped with prescribed signals, tools, supplies and flagging equipment in serviceable condition.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight and mixed trains without dynamic brakes in operation on descending grades as follows:

Toyon to ½ mile east of Valley Spring .... 1 retaining valve for every 75 tons in train.

MP 129 to Helisma ... 1 retaining valve for every 85 tons in train.

Freight and mixed trains with dynamic brakes in operation and handling over 800 tons must use retaining valves as follows:

Toyon to ½ mile east of Valley Springs.... 1 retaining valve for each 100 tons in train.

MP 129.00 to Helisma. 1 retaining valve for each 125 tons in train.

FREIGHT TRAINS

RULE 22. Tracy: Trainmen must not couple air hose on outgoing trains at Tracy until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached, without instructions from the yardmaster, who will see to it that members of the crew are notified in advance.

RULE 25. Will apply at Toyon.

RULE 33. When gross tonnage of freight train handling cars with single capacity brakes exceeds 80 tons per operative brake, maximum speed of train must not exceed 45 MPH, except when gross tonnage exceeds 85 tons per operative brake, maximum speed must not exceed 25 MPH on descending grades of 1.2% to 1.5% and 20 MPH on descending grades in excess of 1.5%. Grades where such restrictions apply will be:

KENTUCKY HOUSE BRANCH

Maximum speed of freight trains must not exceed 20 MPH on descending grades when gross tonnage exceeds 85 tons per operative brake.

Eastward	Westward
MP 135.0 to MP 137.5	MP 120.0 to MP 135.0 MP 137.5 to MP 142.84

MISCELLANEOUS

11. Load limit (car and contents):

Tracy-Polk	251,000 pounds
Stockton-Montpellier	240,000 pounds
Woodbridge-Kentucky House	240,000 pounds
*Galt-Ione	240,000 pounds

*When notified that false bents are not in place on bridges 135.87 and 136.64, load limit between Edwin and Ione will be 169,000 pounds, except that passenger equipment on six axles weighing not over 200,000 pounds may be handled.

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Tracy	18 (Water)
Elk Grove	9 (Water)
Peters	12 (Water)
Adela	15 (Water)
Oakdale	16 (Water)
Claribel	18 (Water)
Clay	8
Clements	10

30.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	At or Near	Description	
104.3	Lodi	Mokelumne River bridge	Side
136.7	Dagon	Sutter Creek bridge	Overhead & side

SPECIAL INSTRUCTIONS—LATHROP SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4 and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT, and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY REGARDLESS OF TIME.

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
EASTWARD, TRACY TO POLK:			
70.70 to 71.20	15	15	15
71.20 to 81.39 (Lathrop Jct.)	79	60	70
Thru switches to Fresno Line, West Zone at Lathrop	25	25	25
81.39 to 90.40	70	60	70
★90.40 to 91.40 (Stockton)	20	20	20
91.40 to 95.00	70	60	70
95.00 to 95.01 (thru turnout)	25	25	25
95.01 to 102.00	70	60	70
102.00 to 104.00	30	30	30
104.00 to 131.70	70	60	70
131.70 to 132.00	70	60	70
EASTWARD, STOCKTON TO MONTPELLIER:			
★90.95 to 93.10 (Stockton)	..	12	12
93.10 to 122.20	..	40	40
122.20 to 140.29	..	30	30
EASTWARD, LODI TO KENTUCKY HOUSE:			
103.51 to 121.40	..	30	30
121.40 to 132.30	..	25	25
132.30 to 139.70	..	15	15
139.70 to 142.84	..	25	25
EASTWARD, LODI TO WOODBRIDGE:	..	25	25
EASTWARD, GALT TO IONE:			
112.12 to 118.70	..	40	40
*118.70 to 138.99	..	30	30

TERRITORY MP MP Column:	PASSENGER TRAINS 1	FREIGHT AND MIXED 2	LIGHT ENGINES 3
WESTWARD, POLK TO TRACY:			
132.00 to 131.70	70	60	70
131.70 to 104.00	70	60	70
104.00 to 102.00	30	30	30
102.00 to 91.40	70	60	70
★91.40 to 90.40 (Stockton)	20	20	20
90.40 to 81.39	70	60	70
Thru switches to Fresno line, East Zone at Lathrop	25	25	25
81.39 to 71.20	79	60	70
71.20 to 70.70	15	15	15
WESTWARD, MONTPELLIER TO STOCKTON:			
140.29 to 122.30	..	30	30
122.30 to 122.20	..	10	10
122.20 to 93.10	..	40	40
★93.10 to 90.95 (Stockton)	..	12	12
WESTWARD, KENTUCKY HOUSE TO LODI:			
142.84 to 139.70	..	25	25
139.70 to 132.30	..	15	15
132.30 to 121.40	..	25	25
121.40 to 103.51	..	30	30
WESTWARD, WOODBRIDGE TO LODI	..	25	25
WESTWARD, IONE TO GALT:			
*138.99 to 118.70	..	30	30
118.70 to 112.12	..	30	40

★Regulated by City ordinance.

***All class engines except DS-200, 201 and DF-200 to 206 restricted to 15 MPH over structures 135.87 and 136.64.**

Holiday Mail and Express trains, No. 375, TOFC specials, Advance FMS and FMS trains, when consist contains no restricted cars, may operate at speeds shown in Column 1, except maximum speed must not exceed 60 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	**15**
Through slip switches	**10**
Through turnouts on other than sidings	**10**
On branches	**10**
★On all yard tracks within city limits, Stockton	**12**
Through controlled sidings in CTC, except:	**25**

★Regulated by City ordinance.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Tracy and Polk	Stockton to Montpellier	Montpellier to Stockton	Lodi to Wallace Toyon to MP 139.0	Wallace to Toyon MP 139.0 to Kentucky House	MP 139.0 to Toyon	Valley Spring to MP 129
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	....	....	....	....	....	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033 5918 to 5924 6034 to 6045	3425	....	....	....	....	....	....
DP-13	6067 to 6068	....	....	....	....	....	....	....
DF-1 to 12	6138 to 6461, 8022 to 8303, except	3750	....	....	....	....	....	....
	with 61:16 gear ratio	....	....	....	....	....	....	....
	with 60:17 gear ratio	3000	....	....	....	....	....	....
DF-100	5200 to 5202	....	....	....	....	....	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	5000	3700	5000	3900	1000	1650	2600
DF-109, 111	4903 to 4905, 5250 to 5252	5000	4000	5000	4200	1225	1800	2825
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	6500	4375	6000	....	....	....	....
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	7300	5025	6775	....	....	....	....
DF-200 to 206	5100 to 5120	2000	....	....	1475	400	575	975
DF-300 to 304	4600 to 4623, 4700 to 4703	3250	2250	3025	....	....	....	....
DF-305, 306	4624 to 4633	3600	....	....	....	....	....	....
DF-307	4634 to 4645	....	....	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....	....	....
DF-502	4816 to 4818	5900	....	....	....	....	....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	3950	....	....	....	....	....	....
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4050	2850	3800	3000	775	1300	2000
DS-1 to 8	1000 to 1032	1625	1350	1850	1150	300	450	775
DS-9 to 12	1033 to 1090	....	....	....	....	....	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	2450	2125	2850	2250	550	950	1450
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	3200	....	....	2275	550	950	1475
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....	....	....	....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Kentucky House to MP 139.0 Toyon to Valley Spring MP 129 to Lodi	Lodi and Woodbridge	Galt to Edwin	Edwin to Ione	Ione to Edwin	Edwin to Galt
DF-100	5200 to 5202					....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	5000	4100	2350	①5000	①5000	5000
DF-109, 111	4903 to 4905, 5250 to 5252					....	....
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	10000	4625	2450	①5300	①10000	10000
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	10000	5175	....	....	....	....
DF-200 to 206	5100 to 5120	3000	1450	825	1750	3000	3000
DF-300 to 304	4600 to 4623, 4700 to 4703	4000	2300	1300	①2850	①4000	4000
DF-305, 306	4624 to 4633	....	....	....	....	....	....
DF-307	4634 to 4645	....	....	....	....	....	....
DF-500, 501	4800 to 4815	....	....	....	....	....	....
DF-502	4816 to 4818	....	....	....	....	....	....
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	....	....	1700	①3450	①10000	10000
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	10000	2925	1750	①3550	①10000	10000
DS-1 to 8	1000 to 1032	4000	1100	775	①1725	①4000	4000
DS-9 to 12	1033 to 1090	....	....	....	....	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	4000	....	1250	①1250	①4000	4000
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550	4000	....	1675	①1675	①4000	4000
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....	....	....	....	....
DS-200, 201	1900 to 1903	....	....	....	....	....	....

①Not permitted to operate between Edwin and Ione when notified false bents are not in place on bridges 135.87 and 136.64.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
80.56	Lathrop (Tracy-Stockton line)	83.04
	" (Merced line)	94.29
109.94	Modesto	114.93
124.98	Turlock	127.32
149.40	Merced	151.42
167.75	Chowchilla	169.02
182.67	Madera	187.00
206.04	Fresno (Pratton-Tulare line)	210.79
End of track	" (Biola-Porterville line)	208.15
199.07	" (Merced-Clovis line)	209.60

Fresno: When making movements against current of traffic, trains or engines must be preceded by flagman over railway and street crossings at grade where wigwags installed, protecting crossings during movement, except where crossing watchman located.

Eastward first-class trains, after passing Signal 2052 (west of Tuolumne St.), must proceed with caution and be prepared to cross to westward main track on signal from yardman.

When Signal 2046 on Pratton line, or Signal 2042 on eastward track displays stop indication train must stop, and after proceed signal received from yardman (green flag by day, green light by night) may then proceed as prescribed by Rules 509 and 513.

Eastward trains via Pratton line to Fresno Yard must receive proceed signal from yardman (green flag by day, green light by night) before fouling eastward or westward main track.

Fresno Yard: Trains entering or leaving yard tracks must receive proceed signal from yardman (green flag by day, green light by night), except within limits of diverging route signals.

RULE 103-A. Automatic crossing gates:

Following crossings protected by gates, with control circuits located within short distance of crossings.

Crews of trains or engines making stop, reverse movements, movements against current of traffic or movements from yard tracks over crossings, must know that gates are down and crossings clear of vehicular traffic before entering crossings.

Station	Location	MP
*Merced	"J" Street	150.80
Manteca	Yosemite Street	96.70

*Does not operate for movements from Poultry Producer's spur and Rule 103-A will apply.

Turlock: Switching must not be done over Main and Olive Street crossings between hours of 12 Noon and 1:00 PM.

Madera: Automatic warning devices at Yosemite Ave. and Sixth St., do not apply to back track which serves Valley Feed & Fuel Co.

Public Utilities Commission orders prohibit operation of train, engine, motor or car over the following crossings unless first brought to a stop and traffic on the highway protected by a member of the crew:

Salida........Broadway St. crossing for any movement that does not operate wigwag, B-106.4,
Modesto.....Tully Ave., on Grange Co. spur, B-112.25-C,
Modesto.....B St. on Shoemaker spur, B-113.55-C,
Chowchilla...Highway crossing and Robertson St., on Standard Oil Co. spur, B-168.11-C,
Herndon.....Crossing Judson Ave. on PG&E spur, B-195.5-C.

RULE 104. The normal position of rigid switches at the end of double track and at junctions, is as follows:

Fresno Yard..End double track, for westward track,
Fresno.......Pratton line, for eastward main track.

RULE 221. Unit for display of flashing light installed at following stations:

Station	Location	Direction
Modesto	On Signal 1137	Westward

Displaying of flashing white light indicates that train-order signal is displaying proceed indication or that train-order operator has train orders ready for delivery, that such train orders do not restrict train at that station, and that train, provided it is not restricted by timetable or by train orders previously received, may pass fouling point of switch at which an opposing train may enter siding or place where time applies if there is no siding.

RULE 505. AUTOMATIC BLOCK SIGNAL SYSTEM

Lathrop: Trains and engines stopped by Signal 828 may apply Rule 509 only after obtaining permission of train-order operator.

RULE 605. INTERLOCKING

Lathrop: East zone: Limits extend from 575 feet west of west switch of crossover to 65 feet east of east switch of crossover.

West zone: Limits extend from 360 feet west of junction switch to 340 feet east of junction switch.

South zone: Limits extend from 225 feet west of junction switch to 65 feet east of junction switch.

WP zone: Limits extend between semi-automatic signals either side of WPRR crossing.

Telephones at interlocking signals governing entrance to East, West, and South zones, and in door of concrete shelter at WPRR crossing.

Biola Jct.: Limits extend on Merced line from 675 feet west of junction switch, and on Biola Branch from 575 feet west of junction switch, to 930 feet east of junction switch on Merced line, and to two unit signal 290 feet east of junction switch on No. 1 drill track.

Trains and engines stopped by signals will call signal operator at train-order office Muscatel by telephone and be governed by his instructions. Telephones and instructions for hand operation of dual control switches are located in battery house at junction switch and at derail on Biola Branch.

Two unit signal on No. 1 drill track. Top unit governs movement to Merced line; bottom unit to Biola Branch.

RULE 680. AUTOMATIC INTERLOCKING

Modesto Tower: TSRy crossing, MP 114.70: Limits extend between interlocking signals in advance of both sides of crossing.

SPECIAL INSTRUCTIONS—MERCED SUBDIVISION

GENERAL REGULATIONS

RULE 825. Madera: Eastward through freight trains when stopping to set out, leave train clear of first crossing west of west switch and westward freight trains clear east siding switch.

RULE 827. Modesto: Passenger trains and trains consisting entirely of passenger equipment, making station stop (except Nos. 51 and 52) must approach Modesto at speed not exceeding 8 MPH to allow forward brakeman to detrain on station side, where rear of train will stop. He will make rolling inspection of train, then walk length of train on opposite side, making standing inspection, giving careful attention to running gear and journal boxes and entrain on station side.

RULE 830. Turlock: City ordinance requires that in event of fire alarm being sounded any train blocking Main St. must clear crossing immediately.

MISCELLANEOUS

11. Load limit (car and contents):

Lathrop-Fresno	251,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

13. LOCATION OF STOCK YARDS

Station	Capacity in cars
Modesto	6 (Water)
Turlock	6 (Water)
Merced	16 (Water)
Chowchilla	5 (Water)
Madera	9 (Water)

SPECIAL INSTRUCTIONS—MERCED SUBDIVISION

SPEED RESTRICTIONS FOR TRAINS: Maximum speed of trains in territory shown below is subject to further restrictions applicable to engines in the train as shown in SPEED RESTRICTIONS FOR ENGINES appearing on page 4, and MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT and OTHER MAXIMUM SPEEDS appearing on page 5 of Special Instructions for All Subdivisions. Speed must be further reduced as prescribed by speed signs, except as specifically authorized by Special Instructions herein, or by timetable bulletin.

All trains must run carefully during and after heavy storms, particularly when the track is apt to be affected. When fog, storms or other conditions obscure track or signals, speed of trains must be so reduced as to permit strict observance of signals and INSURE SAFETY, REGARDLESS OF TIME.

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
EASTWARD, LATHROP TO FRESNO:			
Thru switches, East and West Zones, at Lathrop	25	25	25
On East leg of wye, Lathrop	15	15	15
92.83 to 93.07 (switches)	15	15	15
93.07 to 94.00	30	30	30
94.00 to 112.60	79	60	70
112.60 to 114.00	45	45	45
114.00 to 126.00	79	60	70
★126.00 to 126.30 (Turlock)	30	30	30
126.30 to 149.70	79	60	70
149.70 to 151.60	45	45	45
151.60 to 183.16	79	60	70
183.16 to 184.75	45	45	45
184.75 to 199.28	79	60	70
199.28 to 201.89	50	50	50
201.89 to 201.93 (thru turnout)	25	25	25
201.93 to 204.50	50	50	50
★204.50 to 205.50	20	20	20
EASTWARD, BIOLA TO BIOLA JCT.:			
199.93 to 208.62	40	40	40

TERRITORY	PASSENGER TRAINS	FREIGHT AND MIXED	LIGHT ENGINES
MP MP Column:	1	2	3
WESTWARD, FRESNO TO LATHROP:			
★205.50 to 204.50	20	20	20
204.50 to 199.28	50	50	50
199.28 to 184.75	79	60	70
184.75 to 183.16	45	45	45
183.16 to 151.60	79	60	70
151.60 to 149.70	45	45	45
149.70 to 126.30	79	60	70
★126.30 to 126.00 (Turlock)	30	30	30
126.00 to 114.00	79	60	70
114.00 to 126.00	45	45	45
112.60 to 94.00	79	60	70
94.00 to 93.07	30	30	30
93.07 to 92.83 (switches)	15	15	15
East leg wye, Lathrop	15	15	15
Thru switches, East and West Zones at Lathrop	25	25	25
WESTWARD, BIOLA JCT. TO BIOLA:			
208.62 to 199.93	40	40	40

★Regulated by City ordinance.

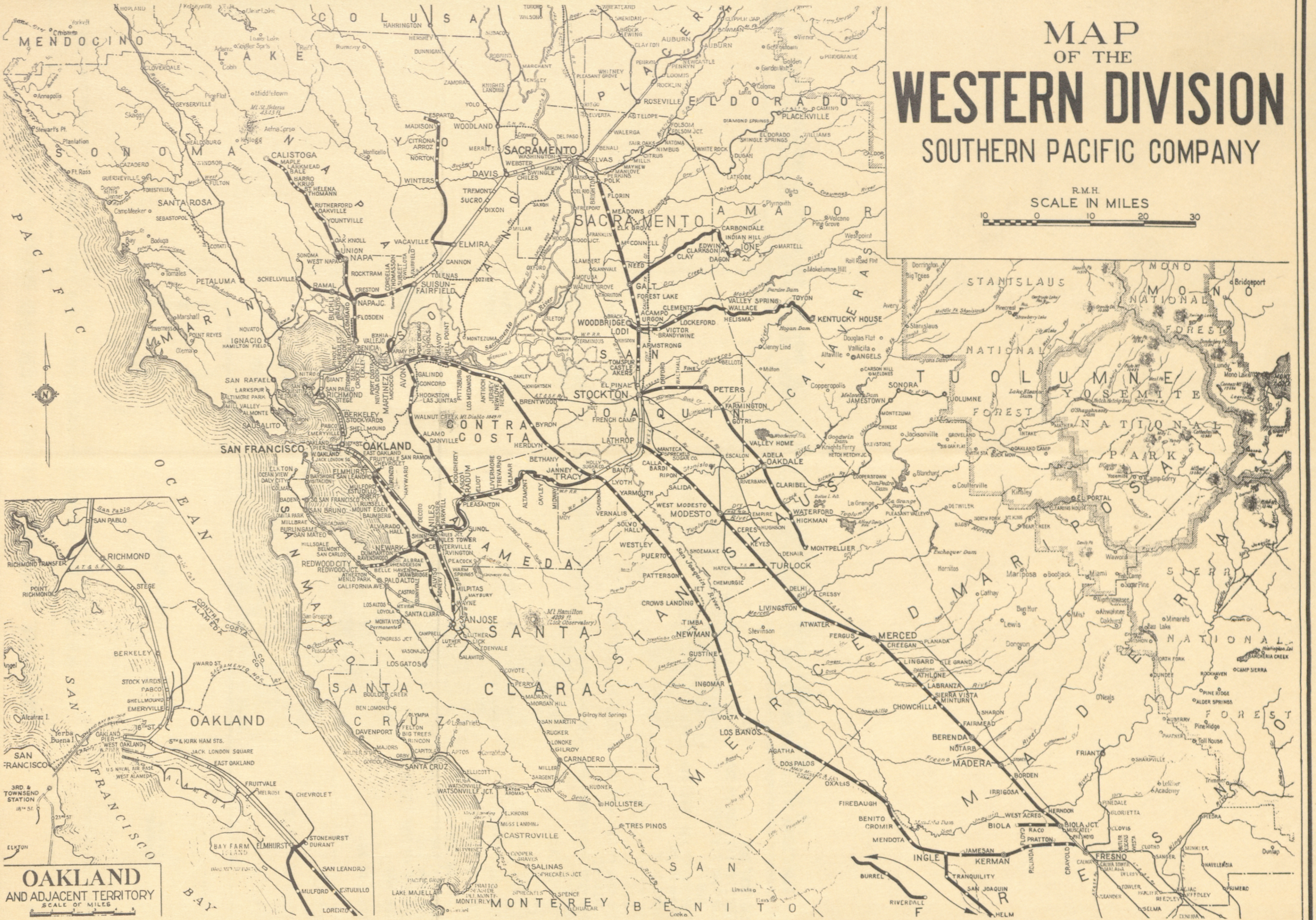
Holiday Mail and Express trains, No. 375 and TOFC specials, when consist contains no restricted cars, may operate at speeds shown in Column 1, except maximum speed must not exceed 60 MPH.

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other tracks, wyes, balloon tracks, crossovers and turnouts, except:	15
Through slip switches	10
Through turnouts on other than sidings	10
On branches	10
On Spreckels Sugar spur, Manteca	10
On Winery spur, Madera	25

RATING OF ENGINES—In Units of 2000 Lbs. (Tons)

NOMINAL CLASS	ENGINE NUMBERS	Lathrop and Fresno	Biola Jct. to Biola
DP-4, 7, 12	6000 to 6004, 6017, 6018, 6046 to 6054, 5900 to 5909, 5916, 5917	3400	....
DP-5, 6, 8 to 11	6005 to 6016, 6055 to 6058, 5910 to 5915 6019 to 6033, 5918 to 5924 6034 to 6045	3425	....
DP-13	6067 to 6068		....
DF-1 to 12	6138 to 6461, 8022 to 8303, except	3750	....
	with 61:16 gear ratio		....
	with 60:17 gear ratio	3000	....
DF-100	5200 to 5202	....	....
DF-101 to 108, 110, 112	4900 to 4902, 5203 to 5249, 5253 to 5278	....	5000
DF-109, 111	4903 to 4905, 5250 to 5252	5000	5000
DF-114, 116 to 118, 120 to 122, 124, 125	5279 to 5293, 5308 to 5335, 5340 to 5444, 5449 to 5493	....	6500
DF-115, 119, 123, 126	5294 to 5307, 5336 to 5339, 5445 to 5448, 5494 to 5507	7300	....
DF-200 to 206	5100 to 5120	2000	2000
DF-300 to 304	4600 to 4623, 4700 to 4703	3250	3250
DF-305, 306	4624 to 4633	3600	3600
DF-307	4634 to 4645	....	....
DF-500, 501	4800 to 4815	....	....
DF-502	4816 to 4818	5900	5900
DF-603, 605 to 607, 611, 612, 616	5600 to 5719, 5730 to 5844, 5872 to 5891	3950	3950
DF-608 to 610, 613, 614, 615	5720 to 5729, 5845 to 5871	4050	4050
DS-1 to 8	1000 to 1032	....	1635
DS-9 to 12	1033 to 1090	....	....
DS-100 to 109, 111, 115 119	1300 to 1441, 1464 to 1485, 1514 to 1528, 1551 to 1567	....	2450
DS-110, 114, 118	1442 to 1463, 1492 to 1513, 1539 to 1550		3200
DS-113, 117, 120 to 122	1486 to 1491, 1529 to 1538, 1568 to 1596	....	....
DS-200, 201	1900 to 1903	....	....

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.



MAP OF THE WESTERN DIVISION

SOUTHERN PACIFIC COMPANY

R.M.H.
SCALE IN MILES

10
0
10
20
30
MENDOCINO
COLUSA
LAKE
SONOMA
NAPA
YOLO
PLACER
ELDORADO
SACRAMENTO
AMADOR
CALAVERAS
SAN JOAQUIN
TUOLUMNE
STANISLAUS
MARIN
CONTRA COSTA
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
MONTEREY
SAN BENITO
MERCED
MARIPOSA
MADERA
FRESNO
MONO
PACIFIC
OCEAN
STANISLAUS NATIONAL FOREST
MONO NATIONAL FOREST
YOSEMITE NATIONAL PARK
SIERRA NATIONAL FOREST
SAN FRANCISCO
OAKLAND
BERKELEY
RICHMOND
SAUSALITO
SAN RAFAEL
PETALUMA
SANTA ROSA
CALISTOGA
NAPA
VALLEJO
BENICIA
MARTINEZ
SUISUN-FAIRFIELD
VACAVILLE
ELMIRA
DAVIS
WOODLAND
SACRAMENTO
ROSEVILLE
AUBURN
FOLSOM
PLACERVILLE
GALT
LODI
IONE
STOCKTON
TRACY
LATHROP
MODESTO
OAKDALE
TURLOCK
MERCED
CHOWCHILLA
MADERA
FRESNO
LOS BANOS
NEWMAN
HOLLISTER
GILROY
SAN JOSE
LOS GATOS
SANTA CRUZ
WATSONVILLE JCT.
CASTROVILLE
SALINAS
MONTEREY
PACIFIC GROVE
PALO ALTO
REDWOOD CITY
SAN MATEO
BURLINGAME
NILES
PLEASANTON
LIVERMORE
HAYWARD
SAN LEANDRO
ELMHURST
KENTUCKY HOUSE
SONORA
JAMESTOWN
HELM
BURREL
RIVERDALE
Mt. Diablo 3849 ft
Mt. Hamilton 4209 ft (Lick Observatory)
OAKLAND
AND ADJACENT TERRITORY
SCALE OF MILES
SAN PABLO
RICHMOND TRANSFER
POINT RICHMOND
STEGE
BERKELEY
STOCK YARDS
PABCO
SHELLMOUND
EMERYVILLE
OAKLAND PIER
WEST OAKLAND
16th ST.
JACK LONDON SQUARE
EAST OAKLAND
FRUITVALE
MELROSE
CHEVROLET
ELMHURST
STONEHURST
DURANT
SAN LEANDRO
MULFORD
ESTUDILLO
LORENZO
ALAMEDA
SAN FRANCISCO BAY
Alcatraz I.
Yerba Buena I.
Angel I.
SAN FRANCISCO
3RD & TOWNSEND STATION
ELKTON